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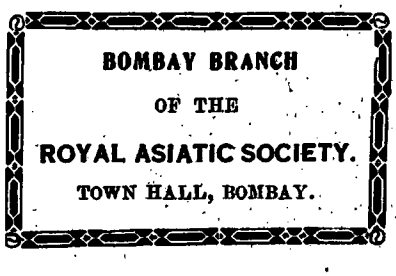

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REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE MANGANESE MINING INDUSTRY IN INDIA

Cx 52

BY

D. V. REGE, I.C.S.,

Chairman, Labour Investigation Committee.

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on rerpresentative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making Cigar and Cigarette. (29) Mica Spliting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P. W. D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, egineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different Provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed and (b) supplementary and special questionnaires in respect of certain industries such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and some of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst employers' and workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned, it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE, *Chairman.*

S. R. DESHPANDE
AHMAD MUKHTAR } *Members.*
B. P. ADARKAR

TEJA SINGH SAHNI,
Secretary.

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Acknowledgments are due to Supervisors, Messrs. D. W. Gaitonde and R. V. Mathai and to Investigator Mr. M. K. Tamasker for their assistance in the collection of the data.

NOTE.

The views embodied in this report are those of the Labour Investigation Committee and the Government of India accept no responsibility for The opinions expressed therein.

CHAPTER I.—INTRODUCTION.

Manganese mining is one of the major mineral industries of India. "India is particularly fortunate in possessing extensive reserves of manganese minerals. This country is, perhaps, the most important producer of certain qualities of hard high-graded metallurgical ore[1]". Manganese is one of the key metals, its chief use being as deoxidiser and desulphurizer in the manufacture of steel. About 95 per cent. of world production of manganese is used for metallurgical purposes and the remainder is consumed in a wide range of chemical uses, especially in dry batteries. The ore is found in the Central Provinces, Bombay, Bihar, Orissa and Madras in British India and in Sandur, Mysore, Keonjhar, Bonai and Patna States. Of these areas, the Central Provinces is by far the most important. The ore is obtained from a few large units and many small mines, nearly all of which are open workings or quarries.

The beginning of the manganese industry in India dates back to the closing years of the last century and mining was first undertaken in the Vizagapatam district of the Madras Presidency in 1892. The ore deposits in the Central Provinces next attracted attention and mining operations were started in the Nagpur district in 1899. About the same time fresh discoveries of ore were made in the Bombay Presidency, Mysore and Central India. The industry made considerable progress in the beginning and in 1907 the production of manganese ore went up to 902,291 tons. The peak figure was reached in 1927 with a production of 1,129,353 tons. From 1928, however, both the output and value of ore began to decline and 1932-1933 was the worst period that the industry had to face. "The full magnitude of this catastrophe to the Indian manganese industry is perhaps best realised from the fact that whilst the quantity of the production in 1933 was a little over one-fifth of that of the peak year 1927, the value was less than one twenty-second part of the value of 1927, production."[2] Many manganese mines in the Central Provinces and elsewhere were closed during this slump period. In fact, in none of the major Indian mineral industries had the effects of the slump been so seriously felt as in the manganese industry. There has been, however, a steady increase in production since 1934, and the following table which is prepared from the statistics furnished for British India by the Chief Inspector of Mines and for the Indian States by the Director of Geological Survey of India shows the production in tons and its value for the years 1939 to 1943 :—

TABLE 1.

Production in tons of Manganese Ore in India and its value, 1939—1943.

	1939	1940	1941	1942	1943
C. P.	5,46,028	6,52,755	6,39,348	6,43,773	4,61,676
Bombay	52,549	49,098	..	28,744	35,230
Bihar	35,803	32,452	53,308	21,156	15,316
Madras	34,640	29,536	14,665	3,083	7,740
Orissa	..	..	..	..	400
Total, British India	6,69,020	7,63,841	7,07,321	6,96,756	5,20,362
Value .. .. .. Rs.	98,06,630	106,60,971	99,80,877	1,28,48,327	91,28,270

[1] J. A. Dunn, Manganese Ore, p. 4.

[2] Handbook of Commercial Information for India, Third Edition, p. 290.

	1939	1940	1941	1942	1943
Sandur	1,22,596	46,862	11,470	6,933	3,171
Bonai	17,796	28,097	24,935	9,761	39,957
Mysore	1,677	816	672	630	300
Keonjhar	33,560	28,760	45,245	42,789	31,210
Patna	..	1,200	1,500	400	300
Total, Indian States	1,75,629	1,05,735	83,822	60,513	74,938
Value .. .. Rs.	4,86,476	4,65,735	4,56,409	(not available for all the mines)	
Grand Total, production	8,44,649	8,69,576	7,91,143	7,57,269	5,95,300
Do. Value .. .. Rs.	10,293,106	11,126,706	10,437,286		

It will appear that the Central Provinces alone is responsible for 76 per cent of the total production in India during the last five years.

Since 1929, the U.S.S.R. has been the greatest producer in manganese and is followed for a second place by India, formerly the leading producer. With the exception of a very small quantity of ore consumed in the manufacture of feromanganese, almost all the ore produced in India is exported. Deposits of Indian manganese ore worked at the present day are mainly of the first grade ore, varying usually between 48 and 52 per cent. metal and form the world's principal source of supply of hard lump ore of this quality. The Central Provinces has a virtual monopoly of first grade ore in this country.

The following tables which are based on the statistics furnished by the authorities mentioned above show the total number of persons employed in the manganese mines in India from 1939 to 1943 :—

TABLE 2.

Average No. of persons employed in Manganese Mines in British India, 1939—1943.

Year.	No. of Mines	Underground	Open Workings			Surface			Grand Total
		Males	Males	Females	Total	Males	Females	Total	
1939	113	1,013	11,864	9,858	21,722	2,584	2,133	4,717	27,452
1940	154	1,013	15,319	13,063	28,382	3,105	2,659	5,764	35,159
1941	125	1,138	12,679	11,503	24,182	2,692	2,338	5,030	30,350
1942	108	1,214	13,523	12,753	26,276	2,440	2,284	4,724	32,214
1943	90	1,172	9,405	9,335	18,740	2,397	1,962	4,359	24,271

TABLE 3.

Average No. of persons employed in Manganese Mines in Indian States, 1939—1943.

Year	Underground			Above ground			Total
	Men	Women	Children	Men	Women	Children	
1939	Nil	Nil	Nil	2,309	1,126	119	3,554
1940	,,	,,	,,	1,650	980	28	2,658
1941	,,	,,	,,	1,388	921	2	2,311
1942	,,	,,	,,	1,374	843	..	2,217
1943	7	4	,,	1,043	755	..	1,809

The total employment in India in 1943 was, therefore, 26,080 out of whom 14,024 were men and 12,056 were women. No women were employed underground except 4 in the Koira Teharai mine of the Bonai State. Persons working underground in 1943 formed 4.5 per cent. of the total employed.

The highest employment figure since 1929 was in 1940 when 37,817 persons were employed in this industry in India. At present the employment has gone down because several mines have slowed down production on account of scarcity of labour and shipping difficulties. The employment in this industry will go up if more use can be made of the metal in this country. "There seems, at present, no reason why the Indian manganese industry should not rise to new peaks of production. Perhaps the greatest possibilities lie in a large increase in production of ferromanganese, which India should strive as much as possible to export in lieu of ore. With low manganese-ore production costs and low fuel charges, India should be well able to compete in the ferromanganese trade. On the past average rate of production, the minimum reserves of the best deposits, in the Central Provinces, will last over 20 years. Geophysical methods of prospecting will bring to light new deposits in the future, and, with deep mining, the manganese industry in India is assured of many years of life."[1] Though India's resources in low phosphorus manganese ore and coal which are necessary for making ferromanganese are limited, the difficulty can be solved, as observed by Dr. Dunn, by electrical smelting.

With the disappearance of war-time difficulties and development of production of ferromanganese, the figure of employment in post-war period in this industry may be put at about 40,000.

The present survey of labour conditions is confined to the Central Provinces, Panchmahals district of the Bombay Presidency and Sandur State. Though the production of Sandur State has of late gone down, it always produced over one lakh of tons during the 11 years from 1929 to 1939, except in the slump year of 1932 when it produced 79,203 tons which was, however, the largest production for any area in that year in the whole of India.

CHAPTER II.—CENTRAL PROVINCES.

Judged either by the number of workers employed or value of the annual production, the manganese industry is the most important mineral industry of the Province, which contains some of the finest ore deposits in the world. Mining operations in this Province were first started in 1899 in the Nagpur district by the C. P. Manganese Ore Company Limited which is the biggest manganese producing concern in India and they were extended to the Balaghat and Bhandara districts in 1901 and 1903 respectively. These three districts have been responsible for practically the whole output of manganese ore in this Province.

Almost all the important manganese ore area in this Province is covered by the C. P. Manganese Ore Company which came first in the field. Indians came in later and have mostly boulder mines. Indian-owned mines are very small and engage, on an average, about 40 labourers except one mine which has a labour force of about 200. Most of them depend on local labour and do not work regularly. Underground work is done only in 3 mines belonging to the Company, *viz.*, Kandri and Mansar in the Nagpur district and Bharweli in the Balaghat district, as the deposits on the surface at these places are nearly exhausted. There were 77 mines under the scope of the Indian Mines Act in 1943 in this Province. The term 'mine' as defined in the Indian Mines Act includes quarries, and all the manganese mines in this Province except the three mentioned above are open workings.

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[1] J. A. Dunn, Manganese Ore, p. 46.

For the purposes of this survey, mines were classified on the basis of employment into three categories :—(1) employing more than 1,000, (2) employing between 500 and 1,000, and (3) employing below 500. All the three mines in the first category, 5 from the second and 13 from the third, were selected at random for investigation. Out of these 21 mines 14 belonged to the Company and the remaining were Indian-owned.

Employment.—

The following table shows the number of persons employed in this industry in 1939 to 1943 :—

TABLE 4.

Employment in C. P. Manganese Mines, 1939—1943.

Year	Underground	Above Ground		Total
	Males	Males	Females	
1939	808	11,228	10,391	22,427
1940	863	14,757	13,682	29,302
1941	1,134	13,690	13,102	27,926
1942	1,057	14,236	14,105	29,398
1943	1,014	10,372	10,511	21,897

It will appear that the number of female workers in this industry is nearly equal to that of men. Women do not work underground. No children are employed. The total number of workers employed in the sampled units was 10,207. About 50 per cent. of the labour force employed in the mines are aboriginals. The nature of work in the mines requires very little skill and suits the temperament of the aboriginals who do not like strict discipline and regular hours of work.

Recruitment.—Recruitment of labour in the case of the Company is entirely done by raising contractors, the chief of whom is the C. P. Syndicate Limited. This Syndicate is the contractor at 6 of the Company's principal mines. Many of these contractors have got their own boulder mines, where they themselves recruit local labour. The contractors send their *mukadams* to the recruiting areas, *viz.*, Chattisgarh, Chhindwara, Jubbulpore, Sambalpur and Rewa State. In some mines *mukadams* are paid a commission of about 4 annas per head by the contractors. Travelling expenses are usually paid to imported labourers which are afterwards recovered. The contractors had little difficulty in recruiting the required number of labourers before the recent heavy demand for labour from coal mines and various military works.

About 20 per cent. of the labour in the Company is local and is drawn from the neighbouring villages. It is generally recruited by contractors by announcing their requirements on the bazar day. The local labourers usually work only in the non-agricultural season and come to the mines after the crops have been harvested. The Whitley Commission found in the Central Provinces traces of the defunct Workmen's Breach of Contract Act in the terms of engagement[1] but it is no longer the case now. The Company has no direct responsibility for the labour employed on its mines, though it accepts a sort of moral responsibility towards them by providing housing, medical facilities, schools, etc. A share of the expense in these welfare activities is borne by the contractors. The following extract from the Whitley Commission Report about the employment of raising contractors in coal mines applies almost with equal force to manganese mines also. "The law also holds the manager responsible for compliance with its provisions in respect of hours of work, holidays, the employment of women, etc. As a rule he

[1] Report of the Royal Commission on Labour in India, p. 107.

has also responsibility for housing and other matters (*e.g.*, water supply) affecting the welfare of the workers outside the mine. Yet he has ordinarily no responsibility for the selection of the workers, the distribution of their work, the payment of their wages or even the numbers employed. We believe that, whatever the merits of the system in primitive times, it is now desirable, if the management is to discharge completely the complex responsibilities laid upon it by the law and by equity, that the manager should have full control over the selection, hours of work and payment of the workers. On all grounds, we recommend the gradual supersession of the raising contractor as such, and the substitution of what is known as *sarkari* working."[1]

The advantages of employing raising contractors are essentially that they relieve the management of recruiting and payment of wages, while the disadvantages are, besides increase in the cost of production, absence of direct contact between management and labour and the probability of unscrupulous contractors cheating their labour. On the whole, it is desirable that the system of raising contractors should be done away with as soon as possible. It is realised by the Company that if labour legislation is increased to a degree necessitating the control of the labour by it in many aspects, the employment of raising contractors would become impracticable.

No service cards or other statistical information is kept for these labourers by the Company. There are no Standing Orders and no Labour Officers.

Classification of Workers.—None of the workers except the supervisory staff is considered permanent. They can leave the work at any time and their service also can be terminated at any time. In actual practice, however, there are very few cases of dismissal or discharge.

There is no graded or time-scale promotion even in the case of monthly-rated staff and there is no system of apprenticeship.

Labour Turnover.—In the absence of reliable data, no accurate figures of labour turnover are possible. Probably 40 per cent. of the labour employed on the Company's mines can be considered stable, though they may and often do move from mine to mine. Another 40 per cent. can be considered migratory and 20 per cent. form the local labour force in normal times. Most of the local labour and above 50 per cent. of the imported labour return to their villages during the agricultural season. Again, the contractors working for two or three adjacent mines change their labour from one mine to another according to need.

Absenteeism.—Figures of attendance in 9 mines of the Company for which reliable data were available in the contractors' books were worked out for four weeks of August 1944 for piece-rated workers who form about 85 per cent. of the total labour force and the results are given in the table below :—

TABLE 5.

Attendance in selected Mines in August 1944.

Wage period	No. of workers		Days worked		Average No. of days Worked	
	Male	Females	Male	Female	Male	Female
First week	2,622	2,224	14,284	12,763	5·4	5·7
Second week	1,746	1,371	9,204	7,014	5·3	5·1
Third week	1,598	1,255	7,345	5,509	4·6	4·4
Fourth week	1,787	1,465	9,621	7,966	5 4	5·4
Weighted average for the month	..	..	..	..	5·2	5·3

It would be seen from the above table that during these 4 weeks (24 working days) both men and women had worked, on an average, for 20.8

[1] Report of the Royal Commission on Labour in India, p. 119-20.

days and that the percentage of absenteeism was 13.3. Absenteeism is general the day after the bazar day. The percentage is much larger in the case of Indian mines which employ local labour. In August 1944 it varied from 19 per cent. to 43 per cent. in 5 mines which could furnish the necessary data.

Wages and Earnings.

Wage rates for the same kind of work differ from mine to mine, and even in the different parts of the same mine on account of considerations of lead, lift, transport facilities, etc. Contractors are generally paid 2½ per cent. extra over their bills to cover the increased cost of tools, etc. Explosives are supplied to them at pre-war rate by the Company, while tools are supplied at cost price. Tools are supplied by contractors to the workers and are replaced when necessary. The calculation of wages in the case of ore is by tons or tubs and in the case of spoils (cutting barren rock or soil) it is either by tubs or by volume of excavation. The Company's ore and spoil tubs are usually of 16 to 17 cubic feet and 25 to 27 cubic feet capacity respectively, but the variation in the size of the tubs, it is alleged by the Company, does not affect the miners who get credit for a ton for a 16½ cubic feet fully loaded tub in the case of ore, but it is doubtful if this is so. Contractors are, however, paid on weight in the case of ore and volume in the case of spoils. It was also noticed in some mines that the contractor took 20 cubic feet of production for a ton from the workers. Miners do not normally experience any difficulty in securing sufficient and regular supply of tubs but since the war, with the heavy wear and tear of tubs and difficulty in supplying replacements, the position is less than satisfactory.

The ascertainment of wages of piece-rated workers who form about 85 per cent. of the workers employed in this industry is beset with difficulties in view of the prevalent practice of paying wages to the gangmen and not separately to each member of the gang. Most of the gangs are small and usually consist of persons related to one another. We were informed that the gangmen distribute wages earned equally among the male and female members of their gangs, irrespective of each member's production, but we could not be sure on this point. Where the gang consists of husband and wife or members of one family, as is often the case, there is no actual need of distribution of wages, but it would not be correct to assume on the basis of a few statements of gangmen that the distribution of wages is equal among the male and female members of the gangs. The Company states that the way the money is distributed among members of the family depends on caste custom. The General Manager of the Company told us that he tried to find out the daily average wages of men and women at Kandri mine with the help of a firm of auditors, but could not go far. In making its wage returns to the Chief Inspector of Mines, the Company has since long followed the practice of treating a woman's share of joint wages as equal to 2/3rds of a man's. The ratio accords almost exactly with that obtaining in other manganese centres. Again, contractors' books are not always kept in a systematic and intelligible manner and sometimes accounts are kept on rough sheets.

The following table shows the average daily and weekly basic wages of contract labour for 4 weeks of August 1944 in different occupations in certain mines of the Company where reliable data could be obtained from the contractors' books. The figures of wages have been worked out on the basis adopted by the Company for its wage returns. Short of verifying actual payments in a fairly large number of gangs in various mines, it appears to be the only way of obtaining fairly reliable figures of wages earned by male and female members of a gang. Out of the 3,058 workers whose wages have

been tabulated, 1,710 were men and 1,348 women. 85 per cent. were piece-rated and 15 per cent. time-rated. The latter have been marked with a 'T'.

TABLE 6.

Cash Wages of workers in certain Mines in August, 1944.

Occupation	Wage period (week)	Total No. of workers		Average weekly wages per head		Average daily wages per head	
		Men	Women	Men	Women	Men	Women
				Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Bed ore Mining and dead work ..	I	834	685	2 8 0	1 10 7	0 7 3	0 4 10
	II	825	721	2 9 0	1 11 2	0 7 11	0 5 3
	III	741	652	1 13 2	1 3 5	0 7 7	0 5 0
	IV	892	844	2 9 6	1 11 9	0 7 11	0 5 3
Underground mining	I	137	..	3 13 7	..	0 10 10	..
Boulder Mining ..	I	65	126	1 14 5	1 4 2	0 6 9	0 4 6
	II	73	154	1 12 10	1 3 3	0 6 9	0 4 6
	III	48	94	1 15 9	1 5 2	0 6 9	0 4 6
	IV	96	149	1 12 4	1 2 10	0 6 3	0 4 2
Development ..	I	313	254	3 3 3	2 1 11	0 8 8	0 5 10
	II	303	242	2 15 5	1 15 7	0 8 2	0 5 6
	III	317	256	2 13 6	1 14 5	0 8 6	0 5 8
	IV	318	248	3 3 11	2 2 7	0 8 10	0 5 11
Transport	I	319	6	1 15 5	1 4 10	0 6 3	0 4 2
	II	255 (T) 324	5	2 3 9	1 7 9	0 7 1	0 4 8
	III	255 (T) 301	5	2 3 8	1 7 9	0 6 9	0 4 6
	IV	243 (T) 304	5	1 13 6	1 8 7	0 5 8	0 3 9
Railing & Loading ..	I	343 (T) 12	40	2 9 10	1 11 11	0 6 11	0 4 8
	II	10	37	3 0 10	2 0 6	0 8 0	0 5 4
	III	9	28	3 13 6	2 9 0	0 10 5	0 6 11
	IV	8	32	3 0 10	2 0 6	0 8 2	0 5 6
Jigging	I	137(T)	95(T)	1 10 11	1 1 11	0 6 5	0 4 4
	II	141(T)	84(T)	1 10 3	1 1 6	0 5 6	0 3 9
	III	110(T)	72(T)	1 10 7	1 1 10	0 5 8	0 3 9
	IV	108(T)	67(T)	1 15 1	1 4 8	0 5 10	0 3 11
Ore Cleaning and Washing	I	1	82	2 8 10	1 11 3	0 6 9	0 4 6
	II	1	78	2 1 9	1 13 9	0 7 3	0 4 10
	III	1	97	2 9 6	1 11 9	0 6 11	0 4 8
	IV	1	97	2 8 8	1 11 1	0 6 9	0 4 6
Miscellaneous ..	I	54	33	2 11 11	1 13 4	0 7 11	0 5 4
	II	59	35	2 14 1	1 14 9	0 8 2	0 5 6
	III	58	35	2 5 3	1 8 10	0 6 11	0 4 7
	IV	57	38	2 13 2	1 13 6	0 7 9	0 5 2
Weighted average for all weeks and for all occupations ..				2 7 0	1 9 11	0 7 7	0 5 0

The average cost of concession in grain and cloth supplied to labour was annas 3.39 and anna 0.40 per head per day in June, 1944. If this is added to the cash wage, the total average earnings per day per man and per woman would be Re. 0-11-4 and Re. 0-8-9 respectively.

In Indian-owned mines which mostly do boulder picking the calculation of wages is by frames which vary from 1½ cubic feet to 10 cubic feet in different mines. It was not possible to have the wage data for 4 weeks in August in all the sampled Indian mines, owing to non-working of some of the mines in that month due to shortage of labour, etc. Wage periods in these mines were, therefore, taken from June 1944 to September, 1944. The average wages per day per worker varied from Re. 0-3-0 to Re. 0-6-1, the average of all the mines being Re. 0-4-8.

The following table gives an idea of changes in piece-rates in certain mines of the Company :—

TABLE 7.

Rates paid by the Company to contractors and by them to the labourers in selected mines in 1939 and 1944.

Rates paid to Contractors			Rates paid by Contractors		
August 1939	August 1944	Percentage increase	August 1939	August 1944	Percentage increase
Bed Ore and Transport					
Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	
1 11 0	2 0 0	18·5	0 11 0	1 0 0	33·3
			to	to	to
			0 15 0	1 4 0	45·5
1 14 6	2 0 0	4·9	0 11 0	0 11 0	Nil
2 2 0	3 0 0	41·2	0 10 0	0 15 0	50
			to	to	to
			0 12 0	1 4 0	66·7
1 14 0	2 2 0	13·3	1 11 0	2 0 0	18·5
1 14 0	2 2 0	13·3	0 13 9	1 0 0	16·4
to	to	to		to	to
2 0 0	2 6 0	18·8		1 10 0	89·1
Development					
10 0 0	10 0 0	Nil	5 0 0	7 8 0	50
to	to	to	to	to	to
40 0 0	65 0 0	62·5	30 0 0	50 0 0	66·7
10 0 0	25 0 0	40	9 0 0	15 0 0	66·7
to	to	to	to	to	
35 0 0	35 0 0	150	15 0 0	25 0 0	
20 0 0	30 0 0	20	12 0 0	12 8 0	4·2
to		to	to	to	to
25 0 0		50	14 0 0	23 0 0	64·3
0 8 0	0 12 0	50	0 7 0	0 12 0	71·4
25 0 0	25 0 0	Nil	12 8 0	12 8 0	Nil
to	to		to	to	
26 0 0	26 0 0		16 4 0	16 4 0	
Loading					
0 1 6	0 1 6	Nil	0 1 0	0 1 3	25
0 1 6	0 1 6	Nil	0 1 3	0 1 3	Nil
	to	to		to	to
	0 3 0	100		0 2 9	120
0 2 0	0 2 0	Nil	0 1 2	0 1 8	42·9
0 2 0	0 2 0	Nil	0 1 6	0 2 0	33·3

It will be seen from the table that there has been a general rise in the rates paid by the Company though the percentage of increase varies from mine to mine and occupation to occupation. In consequence of the rise in the Company's rates, the contractors also have increased their workers' rates, in some cases more than in proportion to the increase in their own rates. Scarcity of labour is apparently responsible for this phenomenon. The basis of wage calculation is one ton in the case of bed ore and loading and 1,000 cubic feet in the case of development. In considering the relationship between the rate paid to contractor and the rate paid to the miner, it is necessary to allow for the contractor's recruiting expenses, overhead charges, issue of free tools and explosives to the miners and losses out of the money loaned to the workers.

All the workers employed directly by the Company are time-rated, generally on monthly wages. The principal categories of workers so employed are foremen and mates. The wages of these categories vary widely from mine to mine, according to the size of the mines and the nature of work in them. Foremen usually get from Rs. 30 to Rs. 125 and mates from Rs. 11 to Rs. 20 per month.

Dearness Allowance.—No dearness allowance of any kind is paid to labour. Monthly-rated staff of the Company which is less than 3 per cent. of the total labour force employed on the mines get a dearness allowance on a sliding scale based on their salaries as follows :—

From Re. 1 to Rs. 20	25% dearness allowance
From Rs. 21 to Rs. 50	20% " "
From Rs. 51 to Rs. 100	15% " "
From Rs. 101 to Rs. 200	10% " "

No bonus is paid to labour though the supervisory staff get an annual bonus of two months' wages. Three Indian-owned mines give dearness allowance to their permanent staff ; one pays 25 per cent. of wages, another 10 per cent. and the third 25 per cent. to those getting below Rs. 50 p.m. and 10 per cent. to those getting above that sum.

Fines.—Since the Payment of Wages Act does not apply to the mines, fine registers are not maintained. A few cases of fines were found in the Company. Fines are, however, seldom imposed.

Wage Period.—The wage period is a week. Payment is made in the afternoon of the day preceding the bazar day which is a holiday. Payment generally starts at 4 p.m. and continues right up to 11 p.m. and even to the small hours of the next morning, if workers are numerous. Departmental staff is paid monthly, usually on the 3rd of the month following, and in any case before the 7th.

Closed days and holidays.—The weekly bazar day is observed as a closed day in the mines and no work is done on the preceding half day also which is utilised for payment of wages, as stated above. No holidays with pay are granted to labour. The Company gives two weeks' holidays with pay to its staff.

Working Conditions.

In the case of opencast working (quarrying) bed ore is extracted at different levels. These levels go on changing according to the extraction of ore and spoils and the development direction. In one big mine there were five levels. Where only boulder mining is carried on there is only one level. Rest shelters are usually not provided on the ground that workers can go to the quarters which are generally close to the mines. Where they are provided, they are made of brick walls with thatch roof, the usual dimensions being 30 ft. × 15 ft. No seating arrangement is made inside the sheds. No rest shelters are provided at all by Indian concerns except one. Latrines and urinals are not provided in most of the mines. Cold water is supplied in the Company's mines during the hot weather and special persons are employed to carry water to each working level. Though there is a large proportion of women workers no creches are provided ; but where there is a rest shelter, it is generally utilised as a creche and an old woman is put in charge.

The underground work is carried on only in three mines belonging to the Company and the depth is generally 350 feet. Petromax and carbide lamps as well as wax candles are used. The supply of candles to workers is not adequate. It was noticed in one mine that six workers were working in the light of one candle. Lighting arrangement, on the whole, is not satisfactory. There is also no proper arrangement for ventilation and gases emanating from the artificial lights cannot but affect the health of the workers. Straight walking in the underground mines is difficult, if not impossible, owing to projecting stones and very low roof. No arrangement is made for latrines or urinals in the case of the big Kandri mine. No rest shelters are provided except in Mansar mine and workers are supposed to take rest either at their places of work or in some hollow place caused by the removal of ore. There

is no arrangement for refreshments or drinking water underground and workers have to come up and walk a long distance before they can get anything to eat. A few workers bring their eatables with them.

Everybody going underground is given a disc with a number. A duplicate is kept by the man in charge who remains at the mouth of the tunnel. This device secures a full knowledge of the workers who have gone underground.

Shifts and Hours of Work.—Hours of work vary with the season in surface mining. Generally in winter, work starts at 8 a.m. and ends at 6 p.m. with an hour's interval for rest and in summer the working hours are from 6 a.m. to 6 p.m. with three hours' interval in the middle of the day. Working hours in the underground are 8, except in one mine where they are 9.

Single shifts are normally worked on surface mines, although when there was a heavy demand for ore, night shifts were employed for development work. In underground mines, there are two shifts, one from 8 a.m. to 4 p.m. and the other from 4 p.m. to midnight, with no rest interval. In the Bharweli mine there are three shifts for pumping water and they work from 8 a.m. to 4 p.m. and 4 p.m. to midnight and midnight to 8 a.m. with no rest. The hours of work in Indian mines are generally 9 and the spreadover does not exceed 10 hours. Workers are not punctual in their attendance and some workers, especially women who bring mid-day meal, were noticed coming two hours late. Non-punctuality is specially noticeable in the local labour.

Gang System.—As stated before, in manganese mines, weekly payment of wages is made to the gangmen and not to each individual member by the raising contractors. In Balaghat district it was, however, noticed that wives of underground workers working on the surface are paid individually by contractors. The gang system is prevalent since long and is deep-rooted. Most of the gangs consist of two members, viz., husband and wife or widow and her son, but some gangs consist of more members and, in fact, one gang came to our notice which consisted of 17 members. The gangman does not charge any commission from the members of his gang. The gang system is not usually prevalent in boulder mining and transport work. In bed ore mining, a pair is necessary ; the man breaks the ore and his wife sorts it. They bore holes for blasting and load the accumulated ore in the last two days of the wage period. In development work, there is generally a gang of four. Two are engaged on excavation and the other two remove the spoils in the tubs. In some mines it was noticed that the gangmen engage some outside labour at various rates fixed by them which amounts to a sort of sub-contract.

The gangmen keep no record of the work done by them. Formerly in some mines workers were given tokens, *i.e.*, slips of paper of different colours for different rates which were printed on them, but the system has been given up due to shortage of paper except in one mine. It was, however, noticed that the gangmen have a rough idea of the wages due to them. The Company's mate records the work done by the gangs in daily books (one for bed ore and one for development) and forwards them to the office in the evening. A similar account is kept by the contractors' supervisory staff also.

Housing.

About 90 per cent. of its imported labour is housed by the Company and the remaining 10 per cent. as well as the local labour live in the neighbouring villages.

The site where quarters are built is known as camp. Different types of quarters are provided in different mines as each manager has designed quarters in the light of experience gained and material available. Even in one mine, barracks of 4, 10, 15 and even 20 rooms are built according to the availability

of land. The standard size of a room is usually 10 feet × 10 feet with a varandah of 10 feet×6 feet. The verandah is generally enclosed and is used for cooking. On some mines a plinth of 9 inches to 1 foot is provided while there is no plinth in other mines. The floors are of rammed *murram* and the walls are generally made of bricks. Windows are usually 2½ ft. × 2½ ft. Mangalore and country tiles and in a few quarters asbestos sheets are provided as roofing. Half of the rooms in a barrack face one side and the other half face the other side to prevent collection of garbage near the quarters. No lighting is provided.

There is an improved type of quarters built in 1943 in Kandri mine. These quarters have two rooms, one living room 11 ft. × 11 ft. and a kitchen 11 ft. × 8 ft. with no chimney. They have no verandah but a passage is built between the two rooms. The floor is of cement. There are 15 such quarters built in one barrack. In the case of mines which have old housing, there is a large number of quarters which is built back to back. For example, in Mansar mine, there are 17 blocks with 68 such quarters. They have no windows and ventilation is secured by square holes in the wall. There is no verandah also and corrugated iron sheets are used for roofing. In this mine, even the 108 converted quarters (in 27 blocks) which have a high roof, one big window and a verandah, are still back to back, though it was stated that the idea was later to have a door in the wall and to give two rooms to each family. The recently built houses are not back to back but have no kitchen. There are 297 temporary quarters for seasonal labour in the same mine. They are also back to back and have no verandah. These were built in war time to take the place of grass huts which were burnt down. Some of them have no windows which was admitted to be an oversight.

The Company is in favour of giving to each family an independent house with two rooms, one living room and one kitchen, but states that there is not enough land available near the mines to do so. It should not be difficult to acquire land for the purpose.

Latrines and urinals are not provided in the camps for labour. Defecation areas are marked off and labour is forced as far as possible to use these areas. In some mines trenching of night soil is practised and in others large herds of swine are kept. Adequate gangs of sweepers are maintained to keep the camps in a sanitary condition.

Supply of drinking water is adequate and is from *pucca* wells. The wells are properly protected and regularly disinfected. There are no bath rooms in the quarters for labour. Generally one family is given one quarter and rent is not charged. Allotment of quarters is made by the contractor under the supervision of the manager. As far as possible, similar tribes and castes are accommodated in one area in a camp. Overcrowding was noticed in several cases as the accommodation provided is insufficient for a large family and two quarters are very rarely given to such families. Workers do not enjoy the ordinary rights of tenancy in these houses.

Housing is provided by three Indian concerns but it is very poor. Houses are *kutcha* and the walls are made of grass or bamboo matting. Ventilation and sanitary arrangements are almost absent. *Kutcha* wells or *nalas* provide water supply. Except in one mine, these houses were not even occupied which shows that the workers do not like to stay in them. Indian concerns, however, generally employ very little imported labour.

Indebtedness.

The extent of indebtedness among mine labour is small and the average amount of debt is usually below Rs. 10. Money is borrowed chiefly from contractors and occasionally from the local money-lenders and co-workers. The rate of interest varies. Contractors do not charge any interest but

In other cases the maximum rate of interest is one anna per rupee per month (75 per cent.). Contractors recover the loan in small sums such as four annas per week. Persons who have worked for many years get fairly substantial loans. Small loans are given by contractors when, for any reason such as bad weather, a worker has not earned sufficient wage in any week.

Some of the labourers are addicted to drink and *bhang* smoking. Mining is a strenuous occupation and a certain amount of drinking will always occur and is perhaps necessary.

Welfare Activities.

Medical Aid.—The Company maintains a dispensary at most of its mines, The doctor in charge is generally an L.M.P. who visits workers in mines which have no dispensary. Workers and their families get free treatment. A qualified midwife is employed in all the large mines to attend maternity cases and for post-natal treatment. Maternity wards were found in two mines and were fully utilised. Anti-malarial staff under a malariologist trained at the Labac Hospital in Assam is maintained at the large mines in the Bhandara and Balaghat districts where malaria is rampant. Anti-malarial work consists of canalising streams, filling borrow pits and spraying static pools with malariol and is done under the direction of Dr. Ramsay of the Ross Institute. Workers quarters are not sprayed. The Company's total medical expenditure in 1943 amounted to Rs. 76,000-9-9. Indian concerns have done very little to provide medical facilities for their workers except maintaining a first aid box, as required by law. One concern has arranged with the Company to borrow the services of its doctor whenever required. The prevalent diseases in the mines are malaria, respiratory diseases, dysentery and muscular rheumatism. Workers are not medically examined either at the time of recruitment or periodically afterwards. Sickness allowance is not given by the Company but an advance is given in a few cases by some contractors. It is generally Re. 1 or Rs. 1-8-0 per week according to the size of the family of the ailing worker. In some cases, on the recommendation of the doctor, rice, milk, etc., are given to the workers free of charge during their illness by some contractors.

First Aid courses are conducted by the mine doctors as and when necessary. The duration of the course is usually 3 to 4 months. Refresher courses are held but it is not a regular practice. First Aid equipment is generally adequate.

Occupational Diseases.—The Company states in its reply that no occupational diseases have been noticed. A large number of muscular rheumatism cases, however, occur in the mining areas. The question whether this ailment can be considered as an occupational disease of the mines needs to be explored.

Canteens.—Canteen is not provided anywhere except in Kandri mine where workers may buy tea and other refreshments, but it is not patronised as well as it might be.

Education.—Almost all the mines of the Company have primary schools for the children of its employees. It is estimated that nearly one-third of the children of school-going age regularly attend the classes. A few children take an interest in carpentry but opportunities on the mines for vocational training other than in various mining operations are few. There is no provision for secondary schools or schools for workers. Books and slates are generally given free either by the Company or by the contractors but no benches are provided for sitting in most of the schools. Buildings are generally provided by the Company and the expenditure over teachers is often shared by the Company with the contractors. Most of the large mines have a club with a radio and library but advantage is taken mostly by the supervisory and clerical staff.

Grain Shop.—Imported workers are supplied with rice at a concession price. Sometimes jawari and, on special occasions, small quantities of wheat, if available, are also supplied. In some mines local workers are given the concession if they are regular workers ; in others they are given an increase of As. 8 per tub in lieu of it. The quantity given, viz., 5¼ *pailis* (nearly 7 seers) is for 5 days attendance in a week and is liable to proportionate reduction in case of absence. None-working children, only of imported workers, are also given grain ration, the quantity being generally half of that given to the workers. The Company has its own cloth factory at one of its mines and cloth consisting of saries, dhoties and shirting is supplied to labour at a concession price. Two saries and four dhoties are given per year. The system of giving cheap grain was started in October 1940 and cheap cloth was first supplied to workers in March 1943. In June, 1944, the average cost of the concession in grain and cloth supplied per person per day was As. 3.33 and As. 0.40 respectively.

Indian-owned mines, with the exception of two, do not provide any cheap grain facilities for their labour.

There is neither a Provident Fund nor any system of gratuity or bonus for labour.

Trade Unions and Strikes.

Workers are completely un-organised and there is no trade union in the mining areas. There have been no strikes also for the last several years. Inconvenient workers are bribed by contractors as one of them admitted to us.

Working of the Labour Acts.

The Indian Mines Act.—It appears from the inspection notes of the Mines Inspectors that they mainly look to the adoption of safety measures and not to other provisions of the Act relating to health, hours of work, etc. Section 17 of the Act which refers to the provisions and maintenance at every mine of latrine and urinal accommodation is not observed. It is understood that the Provincial Government have not yet prescribed for manganese mines the kind and scale of latrines and urinals to be installed. The Payment of Wages Act does not apply to mines.

Workmen's Compensation Act.—The following table shows the number of accidents on all the Company's mines from 1939 to 1944 and the amount of compensation paid :—

TABLE 8.

Accidents and Compensation paid in the C.P.M.O. Co.'s Mines, 1939—1944.

Year	Fatal	Serious (Permanent partial disablement).	Minor Injuries (Temporary disablement)	Compensation Paid.
				Rs. A. P.
1939	3	5	49	1,863 3 9
1940	2	13	41	2,417 4 9
1941	4	9	46	3,253 14 0
1942	10	3	34	6,100 8 0
1943	5	6	28	3,874 15 6
1944	1	3	27	1,251 15 6

The Company pays compensation to workers employed by contractors also. Generally the workers do not report immediately when they are injured while on work. The Company makes a part payment of the compensation when necessary. Fatal and serious accidents are reported to the District Magistrate and the Chief Inspector of Mines. Fatal accidents are also reported to the Commissioner for Workmen's Compensation and compensation is paid through him. Minor injuries which are not classed as serious under the

Mines Act are reported to the Mines Hospital where a record is kept. In the case of temporary and partial disablement, compensation is paid direct to the injured person by the Mines Manager. Workers' chief complaint is about the delay in getting compensation, but the fault seems to lie with the procedure rather than with the Company. The Company does not insure itself against accidents.

There was no accident in the sampled Indian-owned mines in 1943.

Mines Maternity Benefit Act.—Maternity benefit is paid according to the provisions of the Act. Payment is made direct to the woman concerned by the manager or to her husband if she is unable to come and receive the payment. In several cases, maternity benefit before delivery is lost as the women work right up to delivery time. The following table shows the number of cases in which maternity benefit was paid by the Company in all its mines and the amount paid from 1940 to 1944 :—

TABLE 9.

Maternity Benefit paid in the C.P.M.O. Co.'s Mines, 1940—1944.

Year	No. of cases.	Amount paid.
		Rs. a. p.
1940	475	2,802 2 0
1941	593	3,676 8 9
1942	828	5,271 14 0
1943	950	19,402 12 0
1944	711	15,411 1 0

Prior to the introduction of the Mines Maternity Benefit Act, 1941, the Company had its own scheme of maternity benefit which was based on the woman's average earnings. The remarkable increase in the benefit from 1943 is due to the fact that the Rules under the Act were framed only in the beginning of that year. In three of the Indian-owned mines which worked throughout that year Rs. 276 were paid in 17 cases, the average amount per case being Rs. 16-3-9.

CHAPTER III.—BOMBAY.

The Shivrajpur Syndicate Limited owns three manganese mines in the Panch Mahals district of the Bombay Presidency, out of which only one mine, *viz.*, Shivrajpur mine is working at present. The Managing Agents are Messrs. Killick Nixon and Company, Bombay. The mine was started in 1905 with a very small complement of workers. With the outbreak of the first World War, all the three mines were working full strength and the average number of workers employed in the Shivrajpur mine alone was 4,000. All the mines had, however, to be closed for about four years since 1932 on account of the slump. The mine was again closed for a year in 1941 due to war with Japan which was its chief buyer till then. The mine was re-started in 1942 owing to demand for its ore from the U.S.A. The mine is not, however, working full strength due to acute shortage of labour and the average production to-day does not go beyond 2,000 tons a month. The ore is of a low grade and has high phosphoric contents. Underground work was started in this mine regularly since 1935.

The mines are in good order and there is every opportunity for increased production immediately labour becomes available. The management thinks that the Shivrajpur mine can be worked for the next 30 years by employing 2,000 workers as a normal complement.

Employment.

The following table shows the employment and classification of workers into piece-rated and time rated :—

TABLE 10.

Employment in Shivrajpur Mine.

Month	No. of piece-rated workers	No. of time-rated workers	Total
August 1939	1,097	1,459	2,556
January 1944	494	389	883
April 1945	284	235	519

The following table shows the proporton of men and women in the labour fore for the same periods :—

TABLE 11.

Number of men and women in Shivrajpur Mine.

Month	Men	Women	Total
August 1939	2,088	468	2,556
January 1944	571	312	883
April 1945	303	216	519

The women are employed only in opencast working. No children are employed. All the workers are employed and paid directly and there is no contract labour.

Though the demand for the Company's ore from the U.S.A. continues unabated the employment has gone down due to acute shortage of labour. The demand for labour set up by the "Grow More Food" campaign and numerous defence measures has depleted the number of local labourers and has drained the widespread recruiting areas from which the Company use to procure a large part of its labour force. As a last resort, the Company has recently engaged a contractor to procure as much labour as possible. About 50 per cent. of the labour engaged at present is local. Local labourers are mainly agriculturists and look upon mining as a secondary occupation.

Recruitment.—Recruitment is generally done through *tyrdels* who are at present nine in number. Their duties are to recruit labourers from districts in which they are usually well known, convey them to the mines, assist the management in their welfare, see that they attend work and to bring complaints to the notice of the management. The *tyndels* are paid a commission on the earnings of their labour. Some *tyndels* take definite interest in their labour but the average *tyndel* pays little attention to the welfare of his labourers and is content to draw his commission on their earnings. The experiment of raising contracts was tried by the Company some years ago but was discontinued as it was found that the contractors did not pay their labourers properly.

The main areas of recruitment are Jodhpur, Jaipur, Ajmer, Katni and Raichur. Travelling expenses of the workers and their families are paid by the Company which also gives annas 8 per adult and annas 4 per child for food expenses during the journey. These amounts are not recovered. Local workers come to the mine for employment of their own accord and no recruitment for them is necessary.

The Company maintains service record cards for its employees and it is noticed that as many as 50 per cent. of the workers have less than one year's service and the remaining 50 per cent. have between one and five years' service. This shows that there is no settled labour force in this mine.

Classification of Workers.—There is no classification of workers as permanent and temporary and all workers are treated as temporary. Imported workers get their railway fare when they first come to mines as well as when they go on leave after one year's service.

There is no system of graded or time-scale promotion. Time-rated workers are promoted according to their seniority in service and efficiency. There is no system of apprenticeship also.

Labour Turnover.—The following table shows the labour turnover in 1944 :—

TABLE 12.

Average daily No. of workers employed	Total Separations			Percent of total
	Retirement	Dismissal	Voluntary	
780	18		205	28·5

Absenteeism.—According to the management, very few miners work six days in a week and the average number of days worked per week is 4 to 5 in the case of imported labour and 3 to 4 in the case of locals. This is supported by the percentage of absenteeism worked out for a single wage period in April 1945 and it was found that there was 39 per cent. of absenteeism amongst the local workers and 28 per cent. amongst the outsiders. There is more absenteeism amongst local workers during harvesting season and on the day following the pay day. Idleness also is one of the main causes.

It is necessary to note here two measures which the Company has adopted to check absenteeism amongst workers. The *mukadam* of a gang, *i.e.*, the head gangman, gets one anna more per day in case total man-days of the gang exceed 70 during the wage periods, *viz.*, a fortnight. Another measure adopted is that a bonus of ½ anna per day is given to workers, if they attend at least 11 out of 13 working days during a wage period.

There are no Standing Orders nor a Labour Officer. The grievances of the workers are looked into by the departmental heads.

Wages and Earnings.

Two kinds of work are carried on in this mine.

(a) Opencast or quarrying and (b) Underground. The piece-rates in opencast working for a tub of approximately 25 to 27 cubic feet for the years 1939 and 1944 are given below :—

	1939 Rs A. P.	1944 Rs A. P.
Ore rate	1 8 0	1 12 0
Blasting hard *mutti*	0 6 0	0 8 0
Blasting soft *mutti*	0 5 0	0 7 0
Blasting loose *mutti*	0 4 0	0 6 0

In addition to this, there is a scale of lead and lift rates according to the distance and depth respectively and these rates are added to the basic piece-rates mentioned above. These rates have not changed since 1939.

As regards underground work ore rate is Rs. 1-8-0 per tub. If the tubs are more than three per gang per day, the rate is increased to Rs. 2 per tub

With a view to ensure that every worker gets a living wage, the Company has a system of standard (*amani*) rates for piece-rated as well as daily rated people. The rates are as follows :—

	Rs. A. P.
Mukadams	0 8 0
Men	0 7 0
Women	0 5 0

These rates have not changed since 1939. If the daily wages based on production of the piece-rated workers fall short of the standard rate, the difference is made good by the Company. The main categories of daily-rated people are loaders and transporters who get the minimum wage quoted above.

There are only 44 monthly-rated employees and the highest paid man is the underground foreman who gets Rs. 150 p.m., while the lowest paid man is the Checker who gets Rs. 22 p.m.

The following table shows the daily average basic wages and earnings of miners for the first fortnight of April 1945 :—

TABLE 13.

Wages and Earnings of Miners.

Occupation	No. of workers	Man-days	Basic wages	Average per day per worker	Earnings	Average per day per worker
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Surface mining ..	173	1,814½	995 6 0	0 8 10	1,435 0 0	0 12 8
Underground Mining	74	830½	561,12 0	0 11 0	726 10 0	0 14 0

The average increase in the basic wage rates of piece-rated workers since 1939 is about 25 per cent. If the dearness allowance and bonus is taken into consideration, the average cash earnings of piece-rated workers may be said to have increased roughly by about 90 per cent. since 1939. In the case of daily-rated people, the increase in earnings comes to about 60 per cent. only as the basic wage rate of these people has remained unchanged.

Dearness Allowance.—Daily-rated workers like transporters and loaders and piece-rated workers like miners get two annas dearness allowance per day worked. This allowance was started in May 1942 and was one anna per day worked. It was increased to 2 annas in July 1942. In the case of the supervisory staff, the allowance is as follows :—

Up to Rs. 34 p.m. ..	.. Rs. 5 p.m.
Rs. 35 to Rs. 100 p.m. ..	.. Rs. 8 p.m.
Rs. 101 to Rs. 149 p.m. ..	.. Rs. 7 p.m.
Rs. 150 to Rs. 300 p.m. ..	.. Rs. 6 p.m.

Bonus.—At the end of every wage period, 20 per cent. of the earnings is given to piece-rated and daily-rated workers as bonus. Besides this, presents of Re. 1, As. 12 and As. 8 are given annually to *mukadams*, men and women respectively. The monthly-paid workers get two months' salary as bonus every year if they have put in more than 10 years' service, and one month's salary in other cases. Besides this, an attendance bonus is given as stated above to piece-rated workers at ½ anna per day if they have not been absent for more than two days in a fortnight. The payment of bonuses was started in 1943 and depends on the financial position of the Company.

Overtime.—Overtime is sometimes worked in workshop ; the workers are paid the usual rate and nothing extra.

Fines.—Fines are sometimes imposed when the workers damage the Company's properties or when they create trouble. The incidence, however, is small. The balance in the fine fund is Rs. 11 only and the amount is utilised for the welfare of the workers.

Period of Wage Payment.—Monthly-rated employees get their salary on the last day of the month. Other workers have wage period of a fortnight and they are paid within 9 days of the expiry of the wage period. Wages are given in a closed envelope to individual workers separately and the details of his earnings are shown on it. There is no possibility of the workers being deceived. Though the workers work in a gang of 5 to 8 persons, each member's production is calculated and paid for separately.

Working Conditions.

Except the Power House department, all other departments work one shift ers are promoted according to their seniority in service and efficiency. There water in the underground area. Formerly two shifts were sometimes worked in underground. The following table shows the shift hours and the total spreadover :—

TABLE 14.

Shift Hours and Spreadover in 1945.

Department	Shift Hours	Recess	Total Spreadover
Workshop	.. 8·30 a.m. to 6 p.m.	1·30 p.m. to 3 p.m.	9½ hours.
Opencast	.. 8·30 a.m. to 6·30 p.m.	12 noon to 1 p.m. and 4 p.m. to 5 p.m.	10 hours
Underground	.. 9 a.m. to 5 p.m.	No recess	8 hours
Power-House	.. 8 a.m. to 4 p.m.	No recess	8 hours
	4 p.m. to midnight	No recess	8 hours

From the above table it will be seen that there is no recess for underground and power-house workers. Opencast workers enjoy two hours' recess at different intervals with the result that there is longer spreadover. Working hours do not exceed 8 in any case.

For surface workers there is no arrangement for protection against heat, though there are trees nearby which give sufficient shade. Camp workers go to their quarters which are nearby. There are two wells in the mining area and a workman is engaged to supply water to workers. No latrines or urinals are provided for surface workers. Latrines are, however, provided on the surface for underground workers. In addition, pans are provided underground for use in emergency and are cleaned by sweepers. Bath rooms fitted with water taps are also provided for them on the surface. The depth of the underground working is 300 feet. There are rises or winzes for ventilation purposes. For lighting, miner's or carbide lamps, wax candles and kerosene lamps are used.

The workshop has cement flooring and sufficient windows fitted with glass panes. Electric lights are also provided and there is no congestion.

Holidays and Leave.—Workers get a weekly day of rest ; besides, two holidays each are given for Holi, Diwali and Christmas. Only the monthly-rated staff gets them with pay. All the monthly-paid workers get privilege leave of one month and sick leave of 20 days on full pay in a year. Medical certificate is necessary for sick leave. Other workers get one month's leave without pay in a year.

Housing.

There are two types of houses. The artisan type has 81 quarters in 9 blocks. Such quarter consists of four rooms, the sizes being 12 ft. × 12 ft., 12 ft. × 9 ft., 12 ft. × 6 ft. and 7 ft. × 6 ft. Most of these quarters are given to workers in the workshop. They have no electric lights.

The other type of quarters is meant for imported labourers. There are 210 such quarters in 14 blocks. These are single room tenements measuring 10 ft. × 8½ ft. Temporary sheds are erected in front of every occupied quarter. As there is shortage of labour, many of the quarters have remained unoccupied and some workers have been given two quarters instead of one. These quarters were condemned as unfit for human habitation by the Assistant Director of Public Health in 1943 and the Company has already dismantled many of them.

All these quarters are rent free and are built in stone masonry and have corrugated iron roofs. Drainage system is bad as there are open gutters and

soak pits. The Assistant Director of Public Health in his note had suggested that every block should be provided with a cess pool and that the waste water from each living room should be drained into a common *pucca* drain which should ultimately dispose of the effluents in the cess pools. It seems no action has been taken on this suggestion. The Company has already started building a new type of houses to accommodate 50 workers. They will be in 5 blocks. Each quarter will be 12 ft. × 12 ft. and will have a kitchen of 8 ft. × 6 ft. There will be two verandahs, one in front and the other at back, with dimensions of 12 ft. × 6 ft. and 4 ft. × 6 ft. respectively. The construction is so done that in case a family is large, it should be possible for it to occupy two quarters with an entrance from the back verandah. The plinth is two feet. The height of quarters has also been increased and bigger windows and doors have been provided to improve ventilation.

Water Supply.—There are seven wells fitted with electric lift pumps and water is distributed by means of pipes and taps. The supply is plenty and wholesome.

Latrines.—There are 12 sets of *pucca* latrines out of which 3 sets have 18 seats each and the remaining 9 have 8 seats each. The management, however, states that the latrines are not generally used by labourers. No urinals are provided and the labourers use open space for the purpose.

Conservancy.—There are 40 sweepers and one *mukadam* to look after the sanitation of the camp. Night soil and refuse are collected in baskets and taken in headloads by sweepers about two furlongs from the camp where they are burned. The Assistant Director of Public Health stated in his note that the practice of carrying refuse in headloads should be stopped and that the Company should maintain at least one refuse bullock cart.

Welfare Activities.

Medical Aid.—There is a hospital for workers and their families which is properly equipped and has four beds. There is a maternity ward also but the Company has not yet been able to secure a midwife. The doctor in charge is an L.M.P. The Company has spent Rs. 3,556 and Rs. 3,159 during 1943 and 1944 respectively on medicines alone. Prevalent diseases are malaria, pharyngitis, sore-throat, influenza and pneumonia. Workers are medically examined at the time of recruitment and afterwards every three months.

From the health point of view, this mine had for many years borne an unsavoury reputation which largely accounted for the considerable difficulty in obtaining labour. Prior to 1936, no serious anti-malarial measures were undertaken but during that year the management approached Dr. Ramsay, Principal of the Ross Institute, India Branch, for advice. He visited the mines in March 1936 and advised certain anti-malarial measures which were adopted. As a result, incidence of malaria which was 41.87 per cent. in 1936 dropped to 11.15 per cent. in the following year. Statistics show a further reduction for subsequent years until 1940 when the figure was 4.66 per cent. The situation, however, has considerably deteriorated since then for want of quinine and larvicides, though a malarial surveyor trained in the Ross Institute is still maintained. The incidence was 23.23 per cent. in 1944.

Instructions in first aid are given to selected workers by the Medical Officer for about three months and a refresher course is taken yearly. Equipment for first aid is sufficient.

Food grains worth 3 annas are given as sickness allowance per day on production of a medical certificate. If a relative is required to attend the patient, he gets his standard wage.

No occupational diseases are reported.

Grain shop, etc.—The Company maintains a grain shop in which food grains and other articles such as sugar, jaggery, til oil, soap, etc., are sold at

rates lower than the market rates. No canteen is provided by the Company but there is a small hotel run by the contractor just near the camp. No supervision is exercised over this hotel. A creche is maintained in the camp itself but it is not in good order. Attendance is less than five. An old woman is in charge of the creche. There are, however, other benefits in this concern. Tea is served to underground workers after they finish their work. Woollen pullovers are also given to them. Firewood is allowed to be cut from Company's jungles.

Provident Fund.—The Company maintains a Provident Fund which is open to the monthly-rated staff in receipt of Rs. 25 or above who have been in the service of the Company for at least six calendar months. People getting between Rs. 20 and Rs. 25 a month may be admitted to the membership of the Fund at the Company's discretion. The member contributes 8⅓ per cent. of his salary and the Company contributes an equal amount. Hardly 8.5 per cent. of the workers are members of the Fund.

Bonus and Gratuity.—There is no system of bonus and gratuity. On the recommendation of the management, a small remuneration in the form of bonus or gratuity is paid to the workers on their merits at the time of retirement.

Trade Unions and Strikes.

Workers are completely unorganised. There is no trade union and there has been no strike since the Company started its work. There is also no Works Committee.

Working of the Labour Acts.

It appears from the Inspection notes of the Inspectors of Mines that the workings were in good order. No complaints were received about the working of the Workmen's Compensation Act. The following table shows the number of accidents in 1943 and 1944 and the compensation paid :—

TABLE 15.

Accidents and Compensation paid, 1943-44.

Year	Nature of accidents			Compensation paid
	Minor	Serious	Fatal	
				Rs. A. P.
1943	18	7	*Nil*	69 13 6
1944	13	5	*Nil*	536 8 6

Out of the five serious accidents in 1944, there was one case of permanent disablement for which Rs. 462 were paid as compensation. The workers are given instructions to report the accidents to the management immediately. The Company does not seem to shirk its responsibility under the Act.

As regards the Mines Maternity Benefit Act, many of the female workers are local with the result that sometimes they cannot claim the benefit as they leave before working regularly for six months which is the qualifying period. The imported female workers get the usual benefits and also medical facilities during confinement.

CHAPTER IV.—SANDUR STATE.

Sandur State which is in the Bellary district of the Madras Presidency is rich in manganese ore. In view of the high grade iron and manganese ores and the possibility of cheap electric power from the Tungabhadra project, which is within a score of miles from the State, conditions are most favourable for the development of a steel or ferromanganese industry, especially as the manganese ores contain comparatively low phosphorus content.

A lease was given as early as in 1912 to a European Company, *viz.*, the General Sandur Mining Company Limited, to work the mineral deposits of the State. Only opencast working (quarrying) is done in three places by the Company. The following table shows the output in tons and the average number of workers employed in 1939 to 1944 :—

TABLE 16.

Production and Employment in Sandur State Mines, 1939-1944.

Year	Output (tons)	Average No. of persons employed daily			Total.
		Men	Women	Children	
1939	1,22,596	783	266	108	1,157
1940	46,862	381	133	28	542
1941	11,470	89	30	..	119
1942	6,933	88	43	..	131
1943	3,170	53	30	..	83
1944	652	19	9	..	28

Mining work had actually come to a standstill at the time of our investigation (May 1945) on account of war conditions and acute shortage of labour, though the Company hopes to re-commence its work in the very near future. Practically the whole of the Company's ore went to the Continent before the present war and drastic reduction of staff and labour had, therefore, to be made in 1939. A further reduction was made in 1941 and now only a skeleton staff and labour force are retained. The following account of labour conditions relates to times when the mines were working.

Employment.

Labour is recruited and employed by raising contractors. 50 per cent. of the labourers are recruited from outside the State and live in camps provided by the Company. Most of the imported workers come from Cuddapah, Kurnool and Raichur. The contractors are given advances by the Company sometimes up to Rs. 1,000. They in turn give advances ranging from Rs. 5 to Rs. 20 to their gangmen. Local workers come from neighbouring villages and return to their homes after the day's work is over. Some come from a distance of 10 miles even. The imported labourers are considered as permanent while the local ones are considered as temporary. Apart from the provision of quarters for permanent workers, there is no difference between these two classes of workers.

No statistics are available regarding the length of service of operatives. Similarly no figures are available for labour turnover and absenteesim.

Wages and Earnings.

The miners are paid on piece basis and payment is made to the gangmen. A gang usually consists of the gangman's whole family and some relatives. The transporters and other surface workers are paid on daily basis. Overseers, *mistries* and other such employees are on a monthly basis.

The rate paid to contractors for quarrying ore up to 1940 was from Rs. 1-4-0 to Rs. 2 per ton, varying according to lead and lift. In 1940 the rate was reduced to As. 12 per ton. But the difference between the contract rate and the wages paid by the contractors calculated at 6 to 7 annas for men and 4 to 5 annas for women was made good by the company to the contractors. The manager, however, did not see that the contractors' workers were actually paid the above wages, though he used to read out to the workers what should be paid to them.

In December 1944 and the following month, the Company quarried about 5,000 tons of ore by employing workers directly on wages of 10 annas per day and a dearness allowance of Rs. 3-8-0 a month. The total cost worked out

to Rs. 4-8-0 per ton as against the maximum rate of Rs. 2 paid to the contractors.

The Company has drawn up a new revised scale of wages and dearness allowance to apply with effect from 1st March 1945 as follows :—

Wages :— Headmen .. .. 8 as. per day
Men .. .. .. 7 ,,
Women .. .. 5 ,,

Dearness Allowance per day worked :—

Minimum No. of days worked per month	Men Rs. A. P.	Women Rs. A. P.
25	0 3 0	0 2 0
20	0 2 6	0 2 0
15	0 1 6	0 1 0

The dearness allowance paid by the Company from 1941 to February 1944 was Rs. 2-10-0 per month for men and Rs. 2-4-0 for women for at least 25 days' work. In February 1944 the dearness allowance was raised to Rs. 3-12-0 and Rs. 3-4-0.

A holiday bonus of two days' wages a month without dearness allowance is given to all workers who work for 25 days and more in a month.

Wages are settled every month within four days of the expiry of the wage period.

Fines.—Fines are levied occasionally for late coming and for mixing up good and bad ore. The incidence of fine is 4 annas to Re. 1 per head, though in a few cases a fine of Rs. 2 was also imposed. The amount is used for the benefit of the employees. The amount of fines levied in 1942 to 1944 was Rs. 26 and out of it Rs. 5 were paid for a burial.

Holidays.—One peculiar feature is that there is no weekly holiday. The workers work continuously all the days of the week until the pay day. When they receive the pay they go to Sandur or Bellary to make purchases or to enjoy a holiday and return after two or three days. A holiday bonus of two days' pay, referred to before, is given for this purpose.

Working Conditions.

Only single shift is worked. Work is supposed to commence at 8 a.m. and close at 6 p.m. with an hour's interval. The contractors are not, however, bound by the working hours and the operatives are made to work from 6 a.m. to 7 p.m. with one hour's interval. Sometimes on moonlit nights work continues up to 10 or 11 p.m. On one occasion the labourers were made to work with the aid of gas lights.

No rest sheds are provided, but workers take rest under trees. Latrines and urinals are also not provided.

Housing.

The imported workers, *i.e.*, 50 per cent. of the total labour force are provided with living quarters for which no rent is charged. Two out of three mines were visited. Quarters in one mine are of two types. One is a semi-cylindrical hut 10 ft. × 8 ft. with no windows and the height of the roof is 6 feet. The entrance is by a small door 4½ ft. × 3 ft. and the floor is of mud. The other type is a hut consisting of two rooms, one 8 ft. × 10 ft. to serve as a living room and the other 8 ft. × 6 ft. to serve as a kitchen. There is no plinth. Side walls are 4½ ft. high and the roof at the highest point is 8 ft. from the ground. The walls and roof in both the types are of flattened kerosene tins. The extent of overcrowding can be realised from the fact that, on an average, four workers and their dependents live in each hut.

In another mine the quarters consist of back-to-back lines with 7 to 9 rooms on each side. The walls are of mud and the roof is of corrugated iron sheet. The rooms are 10 feet square. No windows are provided and the

entrance to each room is by a narrow door leading from a verandah 3 feet wide. The plinth is 6 inches. Floor is earthen. A few blocks in single file but otherwise conforming to the above description are also seen.

Water in both the places is pumped from a spring to a reservoir and led to the camps through pipes and taps.

Welfare Activities.

Medical Aid.—In 1938, the Company had a medical staff of three doctors and three dispensaries, one in each mine. At present, there is one well equipped dispensary, but no qualified doctor, and the manager dispenses medicines. A sickness allowance of four annas for men and three annas for women per day is paid on the production of a medical certificate.

Other amenities.—There are no other amenities such as canteens or creches. Before the war there was a school with one teacher in each of the mining areas. At present there is no school. Before the war, there was a weekly bazar (*shandy*) in the three areas. At present rice and other provisions are issued at cost price through an overseer who goes to the camps on fixed days in a week.

Trade Unions.—There is no organisation among the workers and there was no strike.

Labour Legislation.—Workmen's Compensation Act* in force in the Sandur State is the same as the one applicable in British India.

Accidents are, however, very few. For the last two years, the records of accidents show only slight cuts on fingers, toes, etc. Accidents are reported to the Police Department of the Sandur State.

CHAPTER V.—SUMMARY AND CONCLUSIONS.

The origin of manganese mining in India dates back to 1892 when manganese quarrying was started in Vizagapatam. Up to 1929 India was the leading producer of manganese in the world and since then it has been second only to the U.S.S.R. in respect of production. Manganese is one of the major mineral industries in India and the total production in 1943 was nearly 6 lakhs of tons. Manganese ore is found in the Central Provinces, Bombay, Madras, Bihar and Orissa in British India and in Sandur, Mysore, Bonai, Keonjhar and Patna States.

The Central Provinces is the most important manganese producing province in India. It has a virtual monopoly of high grade ore and accounted for about 83 per cent. of the production in British India and about 76 per cent. of the production in the country during 1939-1943. This Province as well as Bombay and Sandur have been covered by the present survey. The C. P. Manganese Ore Company in the Central Provinces, the Shivrajpur Syndicate in the Bombay Presidency and the General Sandur Mining Company in the Sandur State are the important mining Companies raising manganese ore in India. Of these only the first Company is raising manganese to any considerable extent at present. Most of the manganese mines in India are opencast workings or quarries. In fact only three mines in the Central Provinces and one in Bombay work underground. Persons working underground form only 4.5 per cent. of the total employed. All mines have slackened the pace of production due chiefly to export difficulties and acute shortage of labour while some have suspended production altogether.

Employment.—In the Central Provinces, 21,897 persons consisting of 11,386 men and 10,511 women were employed in 1943. In the Shivrajpur

* Reference Labour Department u|o No. L.4012|1998, dated the 15th November 1946.

mine, 519 workers consisting of 303 men and 216 women were employed in April 1945. In Sandur only 28 workers, 19 men and 9 women, were employed in May 1945. The total employment in the manganese industry at present may be estimated at about 25,000. Nearly 50 per cent. of the workers are women but they do not work underground. No children are employed. With the disappearance of war-time difficulties and development of ferromanganese production, employment in post-war period may be put at about 40,000.

Recruitment in the Central Provinces and the Sandur State is done through raising contractors but in Shivrajpur mine labour is recruited through *tyndels* who are employees of the Company and get a commission on the wages of the workers recruited by them. In the Central Provinces and Shivrajpur workers except the supervisory staff are temporary. In Sandur, however, nearly 50 per cent. of the workers are classifid as permanent but they enjoy no special privilege other than housing. About 20 per cent. of the workers in the Central Provinces and 50 per cent. in Shivrajpur and Sandur are local people who come from the adjacent villages. There is no settled labour force and the local labour which is primarily agricultural is largely responsible for turnover and absenteeism.

Wages and Earnings.

Most of the workers in the Central Provinces and Sandur and about 50 per cent. of the workers in Shivrajpur are piece-rated. The rates vary from mine to mine and even in the same mine the rate varies on account of considerations of lead and lift and transport facilities. Only the supervisory staff and those working on transport are paid on time rates. The basis of calculation of wages is a ton or a tub of ore or spoils raised. Workers work in gangs which generally consist of members of the same family and wages are paid to the head of each gang who distributes them among the members except in Shivrajpur mine where payment is made to the individual members of the gang. The weighted daily average wages amount to 7 annas and 7 pies for men and 5 annas for women in the C. P. Manganese Ore Company's mines. In Indian-owned mines only boulder picking is done and the average cash wage amounts to 4 annas 8 pies a day. In Shivrajpur, the daily average basic wages of surface and underground miners are 8 annas 10 pies and 11 annas, respectively. With a view to ensure that every worker gets a living wage, the Shivrajpur Syndicate has a system of standard (*amani*) rates for piece-rated as well as daily-rated people. The rates are 8 annas for *mukadams*, 7 annas for men and 5 annas for women. The general Sandur Mining Company has drawn up a scale of wages and dearness allowance to apply with effect from 1st March 1945. The basic rates are 7 annas for men and 5 annas for women.

The C. P. Manganese Ore Company provides cheap grain and cloth to labour and the cost of these concessions in June 1944 was 3.39 annas and 0.40 anna respectively per head per day. Only two of the Indian mines were giving any concessions in kind. In Shivrajpur a dearness allowance of 2 annas a day for every day worked for daily-rated and piece-rated workers and Rs. 5 to Rs. 8 p.m. according to pay for the supervisory staff is given. Besides, a bonus of 20 per cent. of the total earnings is given to daily-rated workers. The monthly-paid staff gets a bonus of two months' pay in a year. The revised scale of dearness allowance in Sandur varies from 1 anna 6 pies to 3 annas for men and 1 anna to 2 annas 6 pies for women for every day worked according to total attendance in the month. A holiday bonus of two days' wages is also given to all workers who put in at least 25 days' work. The wage period is generally a week in the Central Provinces, a fortnight in

Shivrajpur and a month in Sandur. Wages are paid on the eve of the weekly bazar day in the Central Provinces, within 9 days of the expiry of the wage period in Shivrajpur and within 4 days in Sandur.

Working Conditions.

Surface mines generally work a single shift while underground mines work a double shift. Hours in surface mines are generally from 8 a.m. to 6 p.m. with one hour's interval and in underground from 8 a.m. to 4 p.m. and 4 p.m. to 12 midnight for the two shifts without any interval. Arrangements for light and ventilation underground are poor in the Central Provinces but are much better in the Shivrajpur mine. Some mines do not provide latrines or urinals underground ; some have not built rest shelters nor made arrangements for refreshment or drinking water. Shivrajpur mine alone has provided on the surface bath rooms fitted with water taps for underground workers. Even in surface mines no arrangements have been generally made for providing latrines or urinals or rest shelters. Drinking water is usually supplied to workmen at their places of work.

Wrokers get a weekly day of rest in the Central Provinces and Shivrajpur but not in Sandur. The monthly paid staff get two weeks' holidays with pay in the Central Provinces while in Shivrajpur they get one month's privilege leave and 20 days' sick leave on full pay. In addition, all workers are given 6 days as religious holidays in a year in Shivrajpur ; but they are with pay for monthly-rated workers only.

Housing.

In the Central Provinces, 90 per cent. of the imported labour of the C. P. Manganese Ore Company are given quarters. The quarters consist of rooms 10 feet square built in barracks of 4, 10 and even 20 rooms. Many are built back to back. Only three Indian concerns have provided quarters and they are very poor. In Shivrajpur separate types of quarters are provided for artisans and labourers. The quarters for artisans consist of four rooms while the workers' quarters are single room tenements built in blocks of 15 rooms each. The quarters are built in stone masonry and have corrugated iron roofs. In Sandur all imported workers are provided with quarters. They are semi-cylindrical huts measuring 10 ft. × 9 ft. with walls and roof of flattened kerosene tins, or consist of small rooms with walls and roof of the same material. The roof in both the types is not more than 8 feet high. A few quarters are built in mud and brick with corrugated iron roofs. They are back to back and consist of 7 to 9 rooms on either side. Housing, where provided, is free in all the mining areas.

Latrines are provided only in Shivrajpur. In the Central Provinces in the mines belonging to the Company, water supply is from *pucca* wells while in the Indian mines water is drawn from *kutcha* wells or even from *nalas*. In Shivrajpur and Sandur piped water is supplied to the camps from protected wells.

Welfare Activities.

The C. P. Manganese Ore Company maintains a dispensary at most of its mines and has maternity wards in two of its big mines. It also maintains an anti-malarial staff under the control of a trained malariologist. Indian concerns have done very little to provide medical aid for their workers except, maintaining a first aid box as required by law. The Shivrajpur Syndicate maintains a properly equipped hospital for the workers and their families as well as a maternity ward. There is, however, no midwife attached to the hospital. Anti-malarial measures under a trained malariologist are also undertaken. Food grains worth 3 annas are given as sickness allowance per day on production of a medical certificate. In Sandur there is no doctor at present but there is a well-equipped dispensary and the manager dispenses medicines ! A sickness allowance of 4 annas for men and

3 annas for women per day is paid on production of a medical certificate. Prevalent diseases are malaria, respiratory diseases, dysentery and muscular rheumatism in the Central Provinces and malaria, pharyngitis, influenza and pneumonia in Shivrajpur.

In spite of the fact that nearly 50 per cent. of the workers in manganese mines are women, no creches are provided in any of the mines except one at Shivrajpur. In the Central Provinces wherever rest shelters are provided they are used as creches. Almost all the mines of the C. P. Manganese Ore Company run primary schools, the expenses of which are shared by the contractors and the management. In Sandur there were three primary schools when the mines were working but at present there is none.

The C. P. Manganese Ore Company supplies its imported workers with rice and other cereals at a concession rate. The Indian-owned mines with the exception of two, do not provide any cheap grain to their labour. The grain shop at Shivrajpur sells articles to the workers at prices slightly favourable compared to market rates. In Sandur although there is no grain shop, rice and provisions are supplied to the workers at cost price by the Company.

Only the Shivrajpur Syndicate has a Provident Fund, but it is open only to the monthly-rated staff in receipt of Rs. 25|- or more.

Trade Unions.

Workers in the manganese mines are completely unorganised and there have been no strikes.

Working of the Labour Acts.

It appears that the Inspectors of Mines mainly look to the safety measures under the Indian Mines Act while they neglect the provisions relating to health, hours of work and sanitation. The Payment of Wages Act does not apply to mines. Compensation is paid to contract labour in the Central Provinces and Shivrajpur and no complaints were received about the working of the Workmen's Compensation Act. In Shivrajpur many of the women workers are local with the result that sometimes they cannot claim benefit under the Mines Maternity Benefit Act as they leave before working regularly for six months, which is the qualifying period. The Workmen's Compensation Act* in force in the Sandur State is the same as the one applicable in British India.

Conclusions.

To conclude, wages in this industry are low. The C. P. Manganese Ore Company has paid a dividend of 22½ per cent. per annum for the last 6 years and the Shivrajpur Syndicate declared a dividend of 20 per cent. in 1944. In view of the large profits made by these Companies, it is clear that there is a considerable scope for increasing the wage rates in this industry. Concession in kind given in the Central Provinces or dearness allowance and bonus given in other centres are not commensurate with the increase in the cost of living. Working conditions leave much to be desired. Housing and sanitary arrangements are not at all satisfactory. If the system of raising contractors is abolished, the cost of production will go down and labour will not only get better wages but, on the whole, a better deal from the employers. Workers in this industry are not at all organised and it will take a long time for them to be able to stand on their own legs.

Employment in the manganese industry fluctuates considerably at present but it may be hoped that with the progress of industrialisation in the country, manganese ore will be utilised in India to a much larger extent than at present, thereby ensuring regular and increased employment to the workers.

SIMLA, D. V. REGE.
The 30th June, 1945.

* Reference Labour Department u|o No. L.4012|1998, dated the 15th November 1946.

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE MATCH INDUSTRY IN INDIA

BY

S. R. DESHPANDE

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory Industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc, owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnarie on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cottons, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled and such other associations and individuals as were likely to be interested in units but, also amongst employers' and workers' associations in the industry the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint a Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) that the Committee, as a whole, to study each industry, (ii) that the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) that each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE. *Chairman.*

S. R. DESHPANDE
AHMAD MUKHTAR
B. P. ADARKAR
Members.

TEJA SINGH SAHNI,
Secretary.

ACKNOWLEDGMENTS.

In the absence of much written material, either published or received from the interests concerned, the data required for the preparation of this Report had to be collected by the Supervisors and Investigators of the Committee and my thanks are due to them for the thoroughness with which they carried out the duties entrusted to them. I am also indebted to Mr. S. Sundgren, Managing Director of the Western India Match Co., Ltd., for his assistance throughout the enquiry. Mr. S. R. Sundaram, one of the Supervisors of the Committee, rendered invaluable help in checking the facts and figures contained in this Report.

PART I.

CHAPTER I.—INTRODUCTION.

Historical and Economic Background.—Before the outbreak of the first world-war (1914-18), the match industry as a factory industry hardly existed in this country. Some attempts were no doubt made, from time to time, to manufacture matches by small capitalists working on a cottage basis with indigenous wood. But the quality of the matches produced was poor and the major portion of India's consumption of matches was met by imports from Sweden and Japan.

"The first match factory which still survives is the Gujarat Islam Match Factory which was founded at Ahmedabad in 1895 under Indian management*." The growth of the match industry in India in an organized form, however, dates from the year 1922 when a revenue duty of Rs. 1-8-0 per gross was imposed on imported matches at a level which afforded substantial protection to the home industry†. As a result of the duty, the indigenous industry began to make rapid progress. The duty also induced small capitalists in India to manufacture matches on a large scale and many factories were established especially in Bengal and Madras. During the early stages of the development of this industry, however, almost every process of manufacture was carried out by hand and hand-driven machines. Gradually, the prospects offered by the industry for large scale production began to be realized and in the year 1923 some big factories were established‡. By the year 1926, "a large proportion of India's total consumption of abount 18 million gross per annum began to be catered for by manufacture within the country§." The figure of imported matches which was 18.3 million gross in 1915-16 came down to 6.13 million gross in 1926-27. The foreign exporters, especially, the 'Swedish Match Company' could not stand the competition from the new home industry and during the years 1924 and 1925, themselves established factories in India‖. The Company is now styled the 'Western India Match Company Ltd.' and has factories at Ambernath, Bareilly, Calcutta, Madras and Lahore. It has a virtual monopoly of match production in this country and meets nearly 80 per cent. of the demand¶. It has to face no foreign competition because as will be seen from the following statement, as compared to 1926-27, imports into India have dwindled to almost a negligible quantity.

TABLE I.

Year.	Imported matches (in million gross)
1926-27	6·1**
1927-28	3·5
1928-29	1·5
1940-41	1·9
1941-42	0·68+
1942-43	0·21
1943-44	0·028

*'The Indian Match Industry' by L. P. Sinha. Published in 'Capital'.
†'The Location of Industry' in India—p. 46.
‡'The Indian Match Industry.' Article in 'Capital'.
§'The Match Industry in India'. Article contributed to the 'Dictionary of Economic Products and Industrial Resources of India' by the Western India Match Co. Ltd., Bombay.
‖Report of the Indian Tariff Board regarding the grant of Protection to the Match Industry, 1928. P. 5.
¶'The Match Industry in India'. WIMCO'S article.
**Ibid.
†Sea-borne Trade of India, March 1945.

Location and Extent.—The growth of the match industry since the revenue duty was imposed has been phenomenal*. In 1921 there were only 2 match factories in the country employing about 400 persons, but by 1939 their number rose to 113 and the number of workers employed was 16,220. The following table shows the distribution of the factories in 1939 according to the various Provinces and States† :—

TABLE II.

British India.	No. of factories.	No. of workers
British India		
Bombay	7	2264
C. P. & Berar	2	111
Madras	53	3389
Bengal	14	4695
Assam	3	595
U. P.	4	1052
Punjab	2	367
States.		
Baroda	2	575
Gwalior	1	75
Kashmir	1	71
Bombay States	10	1421
Travancore	2	248
Mysore	1	25
Rajputana—Kota	1	160
Hyderabad	10	1172
Total	113	16,220

As there is no all-India Match Manufacturers' Association in the country, it is difficult to give a precise idea of the present location of the industry and the number employed. Nor were the All-India Emyloyers' Associations able to assist in this matter. Through the courtesy of the Western India Match Company, however, an estimate of the number of match factories and the number of workers employed in them has been obtained which shows that there are in India (inclusive of Indian States) about 150 Match factories employing about 16,000 workers. Of the latter, over 6,000 are employed by the WIMCO and their sister Match Company, the Assam Match Company Ltd., Dubri. According to information supplied by the Central Board of Revenue about 100 of these match factories are situated in British India.

A table showing statistics of match factories in British India from 1931 to 1943 will be found in Appendix I.

As these figures relate to British India, they do not present a correct position of the geographical distribution of the industry. Even so it is clear that so far as the number of factories is concerned, Madras heads the list with as many as 67 factories.

As has already been stated, in the early stages of its development, the industry was partially run as a cottage industry which provided work principally to women and children in their own homes. It is within the experience of the writer to have witnessed the decay and death of this cottage industry in Bombay Province and probably the same has happened elsewhere in the country. In South India, even today in two towns near Madura, namely Sattur and Shivakashi, the industry is providing work to hundreds of families in their own homes. These two are virtually match towns, a large pro-

* Article on 'Indian Match Industry' in 'Capital'.

† 'The Location of Industry in India, Pages 48 to 50'.

portion of the population drawing their sustenance from the industry, partially in their homes and partially in the factories.

The dearth of up-to-date statistics relating to the Match industry has already been commented upon. It would, however, appear from the available statistics* that both from the point of view of the number of units as also the number employed, Madras is the largest centre having more than sixty factories and employing over three thousand persons. The Province of Bengal is the next in importance closely followed up by Bombay.

There is little heavy machinery required for match manufacture and the processes are mostly simple in character as will be seen from subsequent paragraphs, although there is sufficient scope for individual skill and dexterity. Some of the plants, notably those of WIMCO, are highly mechanised, while in the smaller units of the industry, beyond the employment of a few gadgets, the whole work is done by hand.

The size of the units varies from a handful of employees as in some concerns in South India to about a thousand employees. In no factory does the number employed exceed 1,100.

Although, from the point of view of the number of persons employed, the match industry cannot be regarded as one of the principle industries in the country, its importance from the point of view of its contribution to the State revenues is very considerable as will be seen from the following figures of Excise Revenue from Indian matches :—

TABLE III.

	Rs.
1941-42	2,90,37,043
1942-43	3,31,87,173
1943-44	4,70,48,166

Scope of the Enquiry.—For purposes of the present enquiry 20 factories were covered. In these an intensive *ad hoc* survey was made and a wage census was also conducted. The following statement contains details of the factories covered :—

TABLE IV.

Name of the Province/State. (1)	No. of factories covered. (2)	Total No. of workers employed. (3)
1. Bengal	5	2,412
2. Bombay	3	1,497
3. Madras	3	1,332
4. Assam	1	1,001
5. United Provinces	1	1,078
6. Punjab	3	385
7. Central Provinces	2	199
8. Mysore State, (Shimoga)	1	250
9. Baroda State	1	230
Total ..	20	8,384

It will be seen that all the important centres of the industry have been covered by the present survey and information obtained about the conditions of work and wages of 52.5 per cent. of the total employed in the industry.

Processes.—It may be of interest to describe here briefly the various processes involved in the manufacture of matches.

* Statistics of Factories in British India.

Wood is the chief raw material required. It has to be of a special soft variety. During the early years of the industry in India most of the wood was imported from abroad. But due to prohibitive cost early steps were taken to explore possibilities of finding local substitutes and as a result of several experiments the wood known as Bombax Malabarium was found. It is available in the heavy forests of Burma, Bengal, Assam, United Provinces, Central Provinces, Parts of Gujrat and Malabar.

Chlorate of Potash and Red (amorphous) phosphorous are the two most important chemicals needed. Several others are made use of both for the head of the splint as also for friction composition of box edges. Glue is used for binding all these chemicals togther. Paraffin, heated to a high temperature, is used for dipping splints in order that the wood may catch fire without difficulty.

Paper used for making the boxes is usually blue in colour and is available in rolls cut into strips of required size for use in wrapping inner and outer box veneers.

The quality of the machinery used at present by some of the progressive factories in India compares very favourably with that used in the West.

The story of the manufacture of a box of matches—from the log of wood to the finished box—makes interesting reading. The logs would have to be of the necessary measurements and quality. They are then cut into required sizes by saws which are electrically driven. The wood has to be cut for making the match stick on the one hand and the match box on the other.

From the power-saws the logs are moved on to the peeling machines. These machines, as their name indicates, peel off from the log billets thin layers and as these layers come out of their respective machines they are further cut with a view to making them suitable for use in the component parts of the box—the inner and the outer. They are simultaneously dented by lancets in order to facilitate their folding into proper shapes by the box-making machines. The next stage is the chopping machine ; it chops off oblong pieces from the strips for outer boxes and narrow pieces for the rims and small pieces to form the bottom of the inner boxes. These are now moved into the box-making department and put into their respective machines. The outer box machines fold the strips along the lancet marks and strips of blue paper are automatically wrapped round the box, the paper having been previously pasted. The inner box machines work on identical lines and in both cases the finished article is automatically thrown out into trays placed to receive them. These inner and outer boxes are now passed through steam-heated chambers and are completely dried. They then go to the box-closing machines where the inner and outer are jointed together into a complete box. The boxes are now passed on to the box-filling department, there to await the arrival of the finished match sticks.

The peeling machines peel off considerably thicker billets for the purpose of the match stick. The splint-veneer strips are put through the splint-chopping machines which cut them into several hundred splints per minute. Then the splints are dried and polished by rotating drums. The next stage is when these splints are passed through sieves in order to remove uneven and defective sticks. The good ones remain over and fall on an oscillator which fills them into a frame so that they lie in orderly stacked rows. An Assistant removes the filled frames from time to time and transfers them to aluminium trays where they lie packed " end on ". They are now despatched to the " continuous machine " department. The invention of this machine marks an important land mark in the industry. Because of this machine the dipping of the splints, firstly in hot paraffin and then in the chemical head composition is now done automatically. " The metal trays packed with splints

are loaded into the machines which transfer them to an endless conveyor band punched with numerous holes, one for each splint, which is automatically rammed and sticks out at right angles to the band. Once secured the bristling rows of splints are carried slowly forward through the body of the apparatus and dipped, first in a super-heated paraffin bath and then in a shallow trough of viscous head-composition. When the sticks have been dipped they travel on with the conveyor to a drying machine and there the heads set and harden. They are delivered ultimately in trays as they went in ".*

In the box-filling department, the work of opening the boxes, filling them and closing them is performed by the box-filling machine. The boxes now need the labels, and the banderols of the Excise Department and the striking surface. Labelling and banderoling are done mechanically and side-painting by circular brushes. A final drying process follows and the match boxes are complete. They go to the packing department and are suitably packed for despatch.

The above is a description of the processes in an up-to-date and highly mechanised factory. There are, however, numerous match factories in India where the manufacture is carried on only partly with the help of the machine. In such factories there are no power-saws and most of the other operations such as box-making, mach-filling, banderoling, labelling, etc. are also done by hand. Besides the enormous waste of time, some of the processes involve work of an arduous and sometimes of a dangerous character.

PART II.

REGIONAL SURVEY OF LABOUR CONDITIONS (I) BRITISH INDIA.

CHAPTER II.—BENGAL.

The match industry in Bengal dates back to the early years of this century although the first match factory on modern lines was not started there till the year 1923. Thereafter, it made rapid progress till the year 1936 when there were 20 match factories in Bengal employing over 5,000 persons. During the present enquiry, however, it was found that there were only 7 units working in the province, 5 in the Calcutta industrial area and 2 in Dacca, although the latter were reported not to be working regularly. Two of the units in the Calcutta industrial area and those at Dacca have very little machinery and most of the work is actually done by hand. The WIMCO match factory at Calcutta has been completely mechanised, while the other two units in Calcutta are partially so.

Employment.—Two of the five units surveyed in Calcutta employ about 82 per cent of the total employed in the match industry in Bengal. In the three other units employment as compared to the pre-war period has diminished owing to the difficulty of obtaining raw materials, chemicals, etc. The labour is generally employed direct except in one case where occasional contract labour is employed. The total number of persons employed in 1944 in the five factories covered was 2,412. In the WIMCO Match Factory no women are employed while, in the other four factories women and children are employed mostly in the box-filling and box-packing departments. It is reported that in some of the factories an appreciable number of children are found working.

About 57 per cent of the workers employed in these factories are time-workers and the rest piece-workers. In the WIMCO Match Factory, however, the majority of the workers are on the piece-rate basis. Only one of

*The above description is partly based on a note supplied by the Head office of the WIMCO.

the factories classifies workers as permanent and temporary. A temporary worker is made permanent after a month's approved service when he is given a permanent card. Permanent workers on piece-rate basis are allowed 6 days' leave in a year, while monthly-rated workers are allowed 14 days' leave with pay in a year. In two of the factories all the workers are recruited as permanent while, in the other two all are recruited as temporary. The labour turnover in the industry is pretty high due probably to the unattractive conditions of service.

An analysis of the length of service of the workers shows that 59.6 per cent had been working in the same unit for less than one year, 14.9 per cent between 1 and 5 years, 18.3 per cent between 5 and 10 years and only 7.2 per cent over ten years. Out of the last category, however, nearly 7 per cent were from the WIMCO Match Factory where the labour turnover does not appear to be high.

As the processes in a match factory are not very complicated there is no system of apprenticeship in this industry in Bengal. Recruitment is generally made from persons offering themselves for employment at the factory gates.

Working conditions.—On the whole, possibly with one exception, from the point of view of sanitation and cleanliness, the working conditions in these factories are satisfatory. Except in the case of one factory where the workers are required to go to the streets for drinking water, proper arrangements are made for the supply of drinking water in others and in fact the WIMCO Match Factory gives iced water to all its employees during summer months. There is also adequate provision for latrines in these factories. Except in one of these factories where the sanitation is very good, in all other factories the latrines are kept in a very insanitary condition.

Hours of work and Shifts.—All the units work only a single shift per day except that a double shift is worked in certain departments, such as peeling and continuous departments, when there is pressure of work. The hours of work are between 7 and 7-30 a.m. to 5 and 6 p.m. In one factory the workers are given rest interval of 2 hours, while in the Western India Match Factory the workers have to put in 10 hours a day.

The WIMCO Match Factory used to work a 53½-hours week with only 6 hours' work on Saturdays. Recently, however, they are working a 60-hour week. Prior to September 1944, for every hour of work over 54 hours workers were paid 50 per cent more for each hour upto 60 hours, but since 1st September 1944, the rates have been increased to 100 per cent i.e. for every hour of work over 54 hours the workers are paid wages for 2 hours. In another factory where occasional overtime is worked the workers are paid only according to the provisions of the Factories Act. There have been complaints that in some of the match factories other than the WIMCO, overtime is occasionally worked and not paid for.

Wages and Earnings.—Since the outbreak of the War there has, on the whole, been little change in the basic wages of the workers in these factories. Only two of the units reported changes in the basic wages mostly of coolies varying from 66 to 200 per cent : this was due to the very large increase in the demand for unskilled labour. There is no system in the industry of giving any time-scale promotion, but increments are occasionally given according to the efficiency of the workers and at the discretion of the management.

A wage census was undertaken in all the five units for the different wage periods in the month of January 1944 and the following table gives the results of the census for important occupations :—

TABLE V.

Table showing wages and earnings in selected occupations in five match factories covered by the Wage Census in Bengal.

Occupation.	Shift.	Sex.	Piece or Time rate.	No. of hours or work per shift.	No. of workers.	No. of samples taken.	Average daily basic wages earned.	Average daily gross earnings including overtime allowances and bonuses.	Average daily net earnings including overtime allowances and bonuses.
							Rs. a. p.	Rs. a. p.	Rs. a. p.
Peeling machine operator	Gen.	Male	P. & T.	9, 9½	58	37	1 8 6	2 0 5	2 0 5
Dippers	,,	,,	,,	9	15	13	0 15 8	1 0 10	1 0 10
Box-fillers	,,	,,	P	9	192	192	0 10 2	0 14 8	0 14 8
	,,	Female	,,	9	52	52	0 7 0	0 10 4	0 10 4
	,,	Child	,,	9	6	6	0 7 10	0 9 10	0 9 10
Packers	,,	Male	,,	9	9	9	0 10 10	0 12 9	0 12 9
	,,	Female	P.	9	75	75	0 7 1	0 10 1	0 10 1
Carpenters	,,	Male	T.	9	51	51	1 5 2	1 11 7	1 11 7
Drivers	Day	,,	,,	9½	1	1	1 10 0	2 0 9	2 0 9
Banderoling	..	..	..	..	..		..	..	..
Machine operator	Gen.	,,	P.	9½	15	15	1 5 0	1 11 2	1 11 2
				Total	474	451			

As the number of working days as also the hours of work differ from unit to unit it was not possible to arrive at figures regarding monthly wages and earnings. However, the table clearly shows that in certain skilled occupations, such as Peeling Machine Operator, Banderoling Machine Operator, etc., the workers earn a fairly high wage. On the other hand, in such large occupations as the box-filling department, the average daily basic wage is about 10 as. only, the average daily earning being 14 as. 8 ps. Female labour in the Packing Department seems to get as low a daily wage as 7 as. with an average earning of 10 as. 1 p. per day. The frequency table* of the earnings of the operatives in these 5 units seems to show that in the case of more than half the workers, the average daily wage is less than a rupee, while the average daily earning is less than Rs. 1-4-0.

Dearness allowance.—Three out of five factories surveyed are paying dearness allowance to all their workers. The other two which are not paying dearness allowance have increased the basic wage especially of unskilled workers. There is extreme diversity in the scale of the dearness allowance paid as between unit and unit. Alhough generally dearness allowance is calculated on the basis of days worked, in some units no such allowance is paid for a whole week if the worker is absent even for one working day. The following are the rates at which dearness allowance is being paid in the three units.

UNIT I.

Earnings upto Rs. 19	Rs. 0-6-0 per rupee.
Earning between 20 to 25	Rs. 0-5-6 per rupee.
Earnings between 26 to 50	Rs. 0-5-0 per rupee.
Earnings between 51 to 80	Rs. 0-4-6 per rupee.
Earnings between 80 to 150	Rs. 0-4-0 Per rupee.

The maximum dearness allowance payable is fixed at Rs. 37-8-0. Further, wages plus dearness allowance, plus concession for grains cannot be allowed to exceed Rs. 300-0-0.

UNIT II.

Annas 2 per day to piece and time-rated workers, and Rs. 5 to Rs. 12 to monthly-rated workers. The same rate of allowance is in operation since 1942.

UNIT III.

The dearness allowance is paid to all workers at the rate of annas 4 per day. The supervisory and clerical staff who are monthly-rated are paid at the rate of 50 per cent of their pay.

Bonus.—Only one of the units viz. the WIMCO Match Factory has given a profit bonus to all its workers. It paid in 1941, half a month's pay and in 1942 and 1943, two months' pay.

Fines.—Only one out of the five units reported that it imposed fines on the workers for late attendance, absence without notice, damage to tools, serious misconduct, etc. No fines are imposed in other factories.

Leave with Pay.—Except the WIMCO Match Factory no other concerns give their workers a paid holiday or any privilege or earned leave. In the WIMCO Match Factory permanent workers on piece-rate basis are given 6 days' leave with pay in a year, while monthly-rated workers are given 14 days' leave with pay in a year. Sunday is usually observed as a closed holiday, and in addition, the factories remain closed on important Hindu and Muslim festival days.

Housing.

The Western India Match Factory has made arrangements for housing some of their labour but these quarters have now been requisitioned by the

*Appendix VI(a) and (b).

Military authorities. The other factories provide housing for certain members of their staff, such as, darwans and sweepers but there is no housing provision made for the ordinary operatives. Most of the workers live in bustis round about the factories. These consist of single detached huts made of mud and bamboo walls and thatched roof or are single-room tenements with roofs of corrugated iron sheets. The monthly rent varies from Re. 1 to Rs. 2. There is no drainage and there are only common latrines and taps. The condition of housing is unsatisfactory.

Welfare Work.—Two of the five concerns have dispensaries of their own and have engaged qualified doctors and compounders. In the WIMCO Match Factory all the workers are medically examined before being admitted to the factory. It is reported that at these dispensaries only ordinary medicines are available and for any special treatment the workers have got to incur expenditure themselves. None of the factories has made any provision for schools for the children of their operatives. One factory has two canteens, one for Hindus and the other for Muslims, which are run by contractors. In the WIMCO Match Factory all the workers are given a cup of tea free of charge every day.

Grain Shops.—Three of the factories including the WIMCO Match Factory have opened grain shops for the workers. The WIMCO's sell food stuffs below the control rates, while two of the units sell the articles at the control rates only. In two units no provision has been made for supplying any food stuffs to the workers.

Provident Fund.—Only one concern viz. the WIMCO Match Factory has a provident fund but it is open to monthly-paid staff only. Thus, none of the factories appears to have made any provision for the future of their operatives.

General observations.—The workers in this industry are not well organised and have no powerful Trade Unions. None of these factories has employed a Labour Officer, although in the WIMCO Match Factory there is a Workers' Committee elected by the workers themselves by open ballot. It is reported that in some of the match factories children under 12 years of age are employed and as the number of Factory Inspectors in Bengal is not adequate such cases are not easy of detection. There have also been complaints of evading the Maternity Benefit Act by discharging women who are likely to qualify for the benefit.

Although Bengal is one of the most important provinces from the point of view of the number of workers employed in the match industry, the employers have not done much for the proper housing of their workers. Nor has the welfare side received sufficient attention. Compared to its other sister factories elsewhere in the country, the WIMCO at Calcutta also seems to have done but little for the welfare of its operatives.

CHAPTER III—BOMBAY.

The exact number of match factories located in the province of Bombay, excluding Indian States, is not known but it is estimated that the number would be approximately 4.

For purposes of the present enquiry, three of the factories in the suburbs of Bombay, including the one belonging to the Western India Match Co. at Ambernath, were surveyed. The WIMCO Match Factory is a highly mechanised one and all work from sawing of wood to banderoling is done through the agency of machines. In the other two factories covered, however, many of the processes are carried out by hand. There is a chlorate factory attached to the WIMCO Match Factory and this factory is also the source of supply of chlorate to the other two factories.

Employment.—The total number of workers employed in the three factories covered for purposes of this survey was about 1,500 in 1944, of which over a thousand were employed by the WIMCO Factory. The other two units are comparatively small and employed 295 and 130 persons respectively.

Of the 1,497 persons employed, 1,214 were males, 263 females and 20 young persons. As compared to the pre-war year 1939, employment in these match factories appears to have gone down considerably. This fall is more pronounced in the case of the employment of women. Only in one of these factories are young persons employed. They are called half-timers and work in the packing and banderoling departments.

More than two-thirds of the workers in the WIMCO Factory are on piece rates, while in the case of the other two an equal number is on time and piece rates respectively. The smaller match factories draw no distinction between permanent and temporary workers, while in the WIMCO Match Factory nearly 90 per cent. of the workers are regarded as permanent.

Labour is recruited directly and no contract labour is employed by any of these concerns. Recruitment is made at the gates of the factories. Usually, relatives of workers are preferred. In the WIMCO Match Factory workers are taken on three months' probation. A small number of persons employed in the WIMCO factory belongs to the criminal tribes.

One of the factories has no Standing Orders but the WIMCO have a "set of rules of employment for factory workers." These, it is understood, are under revision. The other factory follows the Standing Orders adopted for the cotton mill industry in Bombay City.

The WIMCO factory has a Labour Officer to attend to workers' grievances.

The percentage of absenteeism varies very widely between these three factories. In the smaller concerns it amounts to about 20 to 25 per cent, while in the WIMCO Match Co. it is about 6.5 per cent only. The smaller percentage of absenteeism in the WIMCO Match Factory is undoubtedly due to the housing supplied by the company and the numerous welfare activities conducted by them. Nor is labour turnover very high in the WIMCO Match Factory.

Working Conditions.

The working conditions inside the Wimco Match Factory leave little to be desired. The departments are extremely well lighted and ventilated and every care is taken to see that the worker is not put to any undue strain. There is adequate spacing between the machines and enough room for movement. As compared to the WIMCO Factory working conditions inside the smaller factories are very inferior.

Hours of Work and Shifts.—Two of the smaller factories have an actual working day of 9 hours, the spreadover being 10. The starting time is 8 or 8.30 a.m. and work continues up til 6 or 6.30 p.m. The WIMCO Company follow a somewhat complicated system of hours and shifts. The system is as follows :—

The general shifts hours in the factory are 8 a.m. to 6.30 p.m. with an hour's rest interval between 1 and 2 p.m. Saturday is a half-day and the hours of work are 8 a.m. to 2 p.m. Some departments work more than one shift. The peeling department has two shifts : 8 a.m. to 6.30 p.m. and 6.30 p.m. to 5 a.m., with an hour's rest interval. In the continuous machine department there is the following system of six overlapping shifts,

I Shift :	8 a.m. to 6-30 p.m.	Interval 1 p.m. to 2 p.m.
II Shift :	8 a.m. to 9 p.m.	,, 2 p.m. to 5-30 p.m.
III Shift :	2 p.m. to 12-30 a.m.	,, 5-30 p.m. to 6-30 p.m.
IV Shift :	8 a.m. to 6-30 p.m.	,, 12 Noon to 1 p.m.
V Shift :	8 a.m. to 6-30 p.m.	,, 2 p.m. to 3 p.m.
VI Shift :	11-30 a.m. to 12-30 a.m.	,, 3 p.m. to 6-30 p.m.

These hours are observed on week days. It will be noticed that in all cases the actual working hours of each shift are 9-1|2 only. On Saturdays, which are half-days, the working hours are :—

I Shift :	8 a.m. to 11 a.m. and 2 p.m. to 5 p.m.
II Shift :	8 a.m. to 2 p.m.
III Shift :	12 noon to 6 p.m.
IV Shift :	8 a.m. to 12 noon and 1 p.m. to 3 p.m.
V Shift :	8 a.m. to 1 p.m. and 2 p.m. to 3 p.m.
VI Shift :	11 a.m. to 2 p.m. and 3 p.m. to 6 p.m.

Thus, on Saturdays, the actual working hours are 6 only.

Fitters also work in four shifts, the first shift starting at 10 a.m. the second and third at 8 a.m. and the fourth at 2 p.m. All of them have 9-1|2 actual working hours. On Saturdays, they are 6-hour shifts. In the box-making department the starting hour and closing hour for each section is different commencing from 6.30 a.m. and closing at 5 a.m. in each case the working hours being 9-1|2. On Saturday, each of them is a 6-hour shift. The Friction composition section in the packing department has one shift from 6.30 a.m. to 5 p.m. with an interval between 12.30 to 1.30 p.m.

Wages and Earnings.

A wage census was taken of all the workers in two of the factories surveyed. No census could be taken in the third as the manner in which the muster rolls had been maintained could not permit of such an enquiry being made.

There is a very marked diversity in the earnings of the workers in these two factories amounting to about 100 per cent. firstly due to the fact that one of them is highly mechanised, while the other is not and secondly because, while one factory pays dearness allowance on the scale followed by the Bombay Mill Owners' Association, the other pays at a very much lower rate. Strict comparison of the wages paid in the different occupations in these two factories is not possible because of the differences in the nature of the work involved, but the figures set out in the following tables for certain selected occupations may be of interest.

TABLE VI

Table showing wages and earnings of workers in selected occupations in the Match Factory of the WIMCO at Ambernath (Bombay).

Occupation.	Piece or Time rate.	No. of workers.	No. of samples taken.	Sex.	Average daily basic wage.	Average daily gross earnings including over-time, allowances, bonuses.	Average daily net earnings including over-time, allowances, bonuses.	Actual Average net earnings in the wage period.	Average Basic wages in the wage period of samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	Number working days in the wage period.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Carpenters—Banderoling machine	T	13	13	M.	1 6 9	2 10 4	2 10 4	61 10 0	35 12 5	67 12 5	26
Attendants	P	31	29	M.	1 5 10	2 9 5	2 9 5	59 5 10	36 1 2	67 8 8	26
Peeling waste transporters	P.	28	28	M.	1 5 8	2 4 0	2 4 0	53 11 6	28 6 8	47 10 9	26
Box closing Assistants	P	56	56	M	0 15 11	2 2 11	2 2 11	48 9 0	25 15 0	56 15 1	26
Machine Attendants	P	266	264	M.	1 6 0	2 9 5	2 9 5	60 2 3	37 1 4	69 5 10	26
Helpers	P	85	85	M.	1 5 1	2 8 5	2 8 5	59 2 2	35 6 7	66 6 1	26
Veener peeling	P	42	42	M.	1 5 8	2 9 1	2 9 1	30 6 1	38 6 8	70 1 9	26
Box Filling Helpers	P	15	15	F.	1 4 11	2 8 2	2 8 2	58 0 9	34 12 0	66 4 0	26
Box dressers	P	14	14	M.	1 5 6	2 8 8	2 8 8	59 0	32 12 0	63 14 1	26
Banderoling	P	31	31	M.	1 2 3	2 5 6	2 5 6	51 7 7	29 10 7	64 2 0	26
Dryer Attendants	P	28	28	M.	1 2 9	2 3 3	2 6 3	51 10 6	30 5 3	62 12 11	26
Coolies	T	281	57	M.	0 13 1	2 0 0	2 0 0	4 11 4	..	..	26
	Total ..	890	662								

M. = Males F. = Females

TABLE VII.

Table showing wages and earnings in principal occupations in the Bombay Match Works at Kurla (Bombay).

Occupations.	Shift.	Sex.	Piece or Time rate.	No. of hours of work per shirt.	No. of workers.	No. of samples taken.	Average daily basic wages earned.	Average daily gross earnings including overtime allowances and bonuses.	Average daily net earnings including overtime allowances and bonuses.	Actual average net earnings in the wage period.	Average basic wages earned in the wage period by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	No. of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Drivers	I	Males	T	9	13	13	0 14 6	1 1 7	1 1 7	24 13 1	26 0 8	29 15 2	25
Sawyers	I	„	T	9	5	5	0 14 0	1 0 1	1 0 1	21 6 10	21 14 0	25 2 6	25
Machine helper	I	„	T	9	9	9	0 12 5	0 14 4	0 14 4	13 2 4	..	..	25
	I	Females	T	9	23	23	0 9 0	0 10 4	0 10 4	13 10 0	14 1 0	16 2 9	
Carpenters	I	„	T	9	5	5	2 2 6	2 5 10	2 5 10	54 6 10	..	..	25
Packers	I	„	T	9	3	3	0 13 3	0 15 11	0 15 11	22 3 10	..	..	25
		Females	T	9	7	7	0 8 2	0 11 5	0 11 5	15 9 3	..	..	25
Machine attendants ..	..	Males	T	9	35	35	0 14 5	1 0 8	1 0 8	21 12 5	23 7 2	26 15 6	25
		Females	T	9	5	5	0 11 5	0 15 2	0 15 2	16 10 9	..	..	25
Box Fillers		„	P	..	60	60	0 7 7	0 11 6	0 11 6	13 10 4	1 1 7	16 0 8	25
Affixers	..	Males	P	..	15	15	0 9 11	0 12 7	0 12 7	7 9 4	10 13 0	15 2 3	25
		Females	T	9	14	14	0 5 0	0 7 0	0 7 0	6 15 10	..	..	
Arrangers (Veneer) ..	..	„	T	9	25	25	0 6 3	0 8 8	0 8 8	10 12 1	11 8 4	16 2 0	25
Coolies	..	Males	T	9	23	23	0 14 0	1 0 7	1 0 7	20 9 10	21 14 0	25 12 6	25
				Total ..	242	242							

An examination of the frequency* of wages and earnings in these two factories reveals that nearly 80 per cent. earn a wage of between annas twelve and Rs. 1-8-0, while a similar percentage are in receipt of a daily net earning of Rs. 1-12-0 and over Rs. 2-8-0. Actually slightly over 27 per cent. of the workers were earning Rs. 2-8-0 or more per day. The average attendance in the better paying of the two factories was 23.1 out of 26 working days, while in the other, it was 20 out of 25 working days.

The wage rates in the WIMCO factory are fixed as per an award made by the Commissioner of Labour in the year 1935. In neither of these factories is there any regular scale of promotion.

Dearness allowance.—The scale of dearness allowance is different in all the three factories. The Wimco factory follows the scale adopted by the Mill Owners' Association, Bombay, according to which the allowance paid came to about Rs. 1-2-3 per day in March 1944. In one factory the dearness allowance varies from occupation to occupation from 12-1|2 per cent. of the monthly earnings to 25 per cent. of the monthly earnings. In the third factory those getting up to Rs. 1-8-0 per day are paid 50 per cent. of their monthly earnings as dearness allowance, while those getting above Rs. 1-8-0 per day are given an allowance at the rate of 22-1|2 per cent. Piece-rate workers in this factory are paid 75 per cent. of their monthly earnings.

Bonuses.—In the Wimco Match Factory a production bonus is paid according to the following system : Whenever the total production of the factory passes a certain minimum the company gives a bonus to all the workers at a flat percentage on the total earnings (excluding over-time and dearness allowance) in a particular month. The payment of this bonus was started in May 1944. The amount received by the workers, was the highest in June 1944 being 21.3 per cent. of their earnings. During the months of November and December, no bonus was earned, but in February 1945, it was 15 per cent. of the workers' earnings.

The smaller units pay no war bonus while Wimco have been paying for the last three years a war bonus at the rate of one-sixth of the annual earnings of their operatives.

Fining.—Fining in all the three factories is extremely nominal.

In the Wimco Match Factory some workers are paid fortnightly and others monthly. The wage period in the other small unit is the English calendar month. Wages are usually paid within seven days of their becoming due.

Housing.

The smaller units provide no housing for their labour. The WIMCO company houses nearly 50 per cent. of its workers in colonies specially constructed for them. They have provided 452 tenements at a cost of above Rs. 3 lakhs. They are mostly pucca structures either built of brick or of corrugated iron sheets. The houses are properly tiled and have cement flooring. They are all double-roomed. The rent varies from Rs. 2-6-0 to Rs. 4-6-0 per month. The quarters are well lighted and ventilated.

Welfare work.

The two smaller units are doing nothing by way of welfare except keeping first-aid boxes. The Wimco Company have, however, done considerable work in this direction. They have a dispensary in the precincts of the factory which is kept open all the 24 hours. It is in charge of a qualified doctor assisted by compounders, etc. There is a creche for the benefit of the women workers with a proper staff. A Primary School has been started in the workers' colony and special arrangements are also made for the schooling of South Indian children. Free tea is served twice a day to the workers in their

* Appendix VI (a) and (b).

departments. This alone costs the management about Rs. 1,800 a month. The Company runs a grain shop where commodities are sold at concession rates. The loss to the company on account of the shop is over Rs. 2,000 per annum.

The factory has a system of Provident Fund for employees getting a salary of Rs. 50 and over. It is optional in the case of those getting less than Rs. 50 per month. The workers contribute 8-1|3 per cent. of their pay, while an equal amount is contributed by the company. The company's contribution is payable after 15 years' service. The membership on the date of enquiry was 165. There is also a system of paying a Service Gratuity.

The labour in the match industry in Bombay is completely unorganised. At one time there used to be at Ambernath a powerful Union of workers employed in the Wimco Match Factory and this had been recognised by the employers. The Union is now almost defunct.

CHAPTER IV.—MADRAS.

Employment.

As will be seen from Appendix I, there were about 67 match factories in Madras Province employing about 3349 persons in the year 1943. The number of factories intensively surveyed in Madras Province was 3 although a number of them in Ramnad District were personally inspected. One of these was located in Madras, and 2 in the Ramnad District of Madras Province.

The largest among these factories is the Western India Match Company's factory at Tiruvattiyur, about 18 miles from Madras, which employs about 800 workers. The workers are classed as permanent and temporary, the former accounting for about 75 per cent. and the latter for the remainder. About 150 casual workers are employed outside the factory on the basis of daily wages. It would appear from the figures supplied by the management that the turnover of labour is comparatively small and that nearly 70.7 per cent. of the workers have put in more than five years' service. The factory has no Standing Orders at present but these, it is understood, will be put into operation shortly. The workers are recruited through the Labour Officers subject to the management's approval. The workers are medically examined before admission. The factory maintains service cards for all the workers containing full particulars about the operative such as, his wages, leave granted, absence wihout permission, penalties inflicted, etc. From certain figures supplied by the Company for the months of June and July 1944, it would appear that absenteeism is comparatively little, being of the order of about 7.5 per cent. This figure, however, does not include those absent on leave. Absenteeism is generally greater on days following rest days, pay and festival days, etc. The workers get 10 days' casual leave with pay in a year.

Working Conditions.—This is a highly mechanised plant where the bulk of the work is done by the machine and the workmen are not required to undergo much toil. The factory is airy, commodious and well ventilated.

This factory provides latrines and urinals separately for males and females and the number provided is actually in excess of the scale laid down by the Factory Act. Adequate arrangements are made for supplying drinking water and water carriers are employed to distribute water to workers. *The water is boiled before its distribution.* Tiffin sheds are also provided for Hindu and Muslim workers.

Hours of work and Shifts.—This factory works only a day shift. The working hours are from 8 a.m. to 1 p.m. and 2 p.m. to 6 p.m. Sunday is observed as a holiday. The normal hours of work per week until recently were 53½ but now a 57-hour week is being worked. The difference of 3½ hours is worked on Saturdays. The additional hours are recorded as overtime. The spread-over is 10½ hours per day.

Wages and Earnings.—The statements in Appendix II show the present piece and minimum time rates of workers employed in this factory in December 1943. It is stated that in January 1943 the piece rates were increased to the extent of ½ anna per rupee and that adjustments were also made in certain piece rates of a few occupations in favour of the workers. Wages in this concern are fixed on the basis of the prevailing wage rates in neighbouring localities, the workers' cost of living, and the degree of skill and physical effort required for a particular job.

A wage census was taken in this factory on a sample basis for the month of January 1944 and the following table summarises the results for selected occupations.

(Table, page 17).

TABLE VIII.

Table showing wages and earnings in selected occupations in the WIMCO factory at Tiruvattiyur, Madras.

Occupation.	Shift.	Sex.	Piece or Time rate.	No. of hours of work per shift.	No. of workers	Average daily Basics Wage earned.	Average daily gross earnings including overtime allowances & bonuses.	Average daily net earnings including overtime allowances & bonuses.	Actual average net earnings in the wage period.	Average Basic wages earned in the wage period by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	Number of working days in the wage period.
						Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Packing Grossers ..	Gen.	Males	P	9½	15	1 11 0	2 3 11	2 3 11	46 1 3	..	..	25
Sawyers	„	„	„	„	6	1 9 7	1 15 8	1 15 8	46 8 2	39 15 3	49 14 9	„
Peeling Machine operators	„	„	„	„	10	1 9 6	1 14 11	1 14 11	45 14 2	43 9 9	53 2 0	„
Coolies—Box-making ..	„	„	„	„	17	1 5 9	1 9 6	1 9 6	34 6 9	34 10 3	43 14 0	„
chambers	„	„	„	„	1	1 5 7	1 11 5	1 11 5	41 2 3	..	..	„
Choppers	„	„	„	„	3	1 5 3	1 9 5	1 9 5	35 3 6	..	..	„
	„	„	„	„	2	1 4 11	1 8 11	1 8 11	35 3 9	..	..	„
Machine men ..	„	„	„	„	76	1 4 6	1 8 7	1 8 7	24 10 10	36 2 3	45 3	„
Drivers—												
(Box-closing) (Box-making) ..	„	„	„	„	106	1 3 9	1 5 3	1 5 3	33 5 0	33 6 9	42 13 0	„
Bandrolers	„	„	„	„	18	1 1 7	1 5 6	1 5 6	31 13 6	27 15 6	34 4 6	„
Peeling Tuble Boys ..	„	„	„	„	51	1 1 0	1 3 8	1 3 8	24 13 6	26 4 9	29 7 9	„
Box-labelling Helpers	„	„	„	„	26	1 0 9	1 5 3	1 5 3	28 8 9	..	..	„
Box-filling workers— Feeders, Helpers & Arrangers. ..	„	„	„	„	86	1 0 6	1 3 4	1 3 4	24 11 8	16 6 2	20 14 10*	„
General Coolies ..	„	„	„	„	65	0 13 6	1 0 11	1 0 11	23 7 7	20 10 0	26 5 0	„
		Total	..	..	482							

* The average monthly earning relates to those who have attended all the working days in the wage period. As they are piece workers, the actual average net earning is more, due to individual efficiency.

It will be seen that the average daily basic wages vary from 13 as. 6 ps. to Rs. 1-11-0 and the average daily net earnings from Rs. 1-0-11 to Rs. 2-3-11. As will be seen from a subsequent paragraph, the difference between daily basic wages and net earnings is not very wide because of the system followed by the factory of giving commodities to its workers at pre-war rates.

In addition to the basic wages the Company pays the following allowances and bonuses :—

(a) Dearness allowance,
(b) Attendance bonus,
(c) Annual war bonus,
(d) Supply of stores at pre-war prices,
(e) Supply of fuel at Rs. 8-2-0 per ton.

(a) *Dearness Allowance.*—Unlike most factories in the country, this factory supplies to its workers nearly fifty commodities of daily consumption at pre-war prices. A list of these commodities will be found in Appendix III. It is estimated that the cost of this concession to the employer is about Rs. 25 per month per worker. The management, therefore, pay only a nominal cash dearness allowance of As. 0-1-4 per rupee of earnings to those earning up to Rs. 75 per month.

(b) *Attendance bonus.*—This bonus is paid at the rate of 10 per cent. of the earnings to those who do not absent themselves for more than one day in a month and at the rate of 5 per cent to those who absent themselves for not more than two days in the month.

(c) *War bonus.*—The payment of this bonus is dependent on the profits made by the Company. This is not a regular annual payment but the Company has recently paid a war bonus equivalent to 3 months' wages *inlcusive of dearness allowance* to all workers earning Rs. 50|- and below, and equivalent to 3 months' wages to others.

In regard to overtime, this factory pays double the wages for overtime work in excess of normal working hours. In the case of piece workers the average wages are deemed to be ordinary wages for calculating overtime.

Wages are paid directly to the labour and the period of wage payment is a month. Wages are paid six days after they become due.

Housing.

About 11 per cent. of the total workers are provided with housing accommodation. The houses are provided with electric lights, adequate water supply, and underground drainage. Two bath rooms with shower arrangements each having six cubicals have also been provided. Each tenement consists of one bed-room, a kitchen, a closed backyard and a front verandah. On an average there are four persons in the family and the rent charged is Rs. 2-8-0 per month. The quarters are situated about a furlong from the factory and amenities such as, a market, a post office, etc. are available in the vicinity. The quarters are provided only to essential workers likely to be required for duty. As regards the other employees of the Company, they live either in the town proper or come from adjacent villages. It is stated that the workers of this factory prefer to live in their own villages.

Subletting is not permitted and each tenant has to sign a copy of an agreement (Appendix IV) which contains the terms of tenancy. It is stated by the management that 15 days' notice on either side should be given for the termination of the tenancy. The agreement, however, contains the following clause :—

" The Company shall be at liberty to revoke this license at any time without notice and without giving or being liable to give any reason thereafter to the

licensee and thereupon the licensee will forthwith hand over to the Company vacant possession of the rooms."

Welfares Activities.

It is stated that as the workers bring their own food there is no necessity for establishing a canteen. No creches have been established, as no female labour is employed. The factory provides free medical attendance to workers and dependants living in the Company's quarters and also to such of the workers as call at their dispensary. Arrangements are made for certain outdoor games but the most important welfare activity of this concern is to provide stores at pre-war cost. The Company runs a free school for workers' children and it is estimated that the percentage of literacy among the owners of this factory is about 52.

General.—This factory has a well-paid Labour Officer. The relations between the management and the workers appear to be cordial and the workers' Union, which has a membership of about 800, has been recognised by the management.

(B) Ramnad District (Madras Presidency).

Ramnad district in Madras is a large match manufacturing centre with a number of match factories. According to the Report on the Administration of the Factories Act for the year 1941, there were in this district 33 factories employing about 1,785 persons. A large majority of these are small units employing from 20 to about 100 persons, although there are one or two employing 100 or more persons. These factories contain very little machinery and much of the work is done by hand. Moreover, many of the smaller units allow the workers, and some-times outsiders, to take work home and are paid on piece-work basis. As stated already, Sattur and Shivakasi which are the two main centres of the industry in this district are virtual match towns where the bulk of the population seems dependent on the industry and in almost every home can be seen men, women and children engaged on some process of match manufacture such as, box-making, box-labelling, etc.

It was impossible to make an intensive survey into the working conditions in all these factories but a good few both at Sattur and Shivakasi were personally inspected. A most remarkable sight was that on arrival it was found that young persons of about the age of 8 or 10, particularly girls, ran helter-skelter with trays on their heads. It was explained to me by the Factory Inspector that this was an usual sight when he visited these factories. The meaning of it all was that these youngsters were all uncertified children working in the factories who were trained to pretend, on the appearance of the factory Inspector or any other visitor, that they were only carrying the trays etc. to their homes for the work to be done by their elders in their homes. In these factories were also found working many children who were obviously under 12 years of age although they seemed to be in possession of badges showing that they were certified.

Most of these factories are housed in fairly large sheds and the workers do their work squatting on the floor. There is enough moving space and generally speaking the sheds are well lighted and ventilated. The working conditions are fairly satisfactory except in the Dipping department where the atmosphere is hot and unpleasant.

There are no special arrangements for water supply etc. although there is a common tap for drinking water. Sanitary arrangements are usually poor. Generally there are no rest sheds as the workers go to their houses for their afternoon meals.

Hours of work and shifts.—Usually one shift per day is worked and the hours of work are from 8 a.m. to 1 p.m. and 2 p.m. to 6 p.m. with an

hour's interval. There are, however, complaints that many of the workers in these factories are made to work for about ten hours a day without being paid any over-time allowance. Sunday is generally observed as a closed day.

Wages and Earnings.—Two of the bigger units from among these factories employing about 532 persons were selected for purposes of a wage census. One of these factories reported that it employed an additional labour force of 460 workers who worked in their own homes. The census related to the weekly wage periods ending 20th and 23rd in the month of January 1944 and covered only those employed in the factory itself. These factories, however, had a different wage period for time and piece workers. In both factories dearness allowance was being paid only to time-rated workers at a rate of Rs. 4|- and Rs. 5|- per mensem respectively.

The following tables give the frequency of wages and earnings in these two factories.

TABLE IX (a).

Table showing the frequency of daily basic wages.

Wage groups.	No. of workers.	Per-centage to total.
Under annas four	159	29·88
Annas 4 and below As. 6	200	37·59
Annas 6 and below As. 8	157	29·51
Annas 8 and below As. 10	12	2·26
Annas 10 and below As. 12	2	0·38
Annas 12 and below As. 14	1	0·19
Annas 14 and below Re. 1	1	0·19
Over Re. 1	nil	
Total	532	100

TABLE IX (b).

Table showing the frequency of Net Earnings.

Income groups.	No. of workers.	Per-centage to total.
Under annas four	130	24·44
Annas 4 and below As. 6	185	34·77
Annas 6 and below As. 8	152	28·57
Annas 8 and below As. 10	15	2·82
Annas 10 and below As. 12	32	6·01
Annas 12 and below As. 14	10	1·88
Annas 14 and below Re. 1	6	1·13
Re. 1 and below Rs. 1/2	..	..
Rs. 1/2 and below Rs. 1/4	..	..
Rs. 1/4 and below Rs. 1/6	1	0·19
Rs. 1/6 and below Rs. 1/8	1	0·19
Over Rs. 1/8	nil	
Total ..	532	100

So far as the basic wages are concerned, it will be seen that over 96 per cent. fall under the wage group below annas 8, while the earnings of about 88 per cent. also fall within that group. No woman or child appears to earn more than annas 8 per day.

The unskilled labour in these factories consists mostly of women and children. They are usually engaged in frame-filling, box-making, box-filling,

TABLE X.

Table showing basic wages and earnings in principal occupations in the National Match Works at Shivakasi, Ramnad Distt. (Madras).

Occupations.	Shift.	Sex.	Piece or Time rate.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses.	Average daily net earnings including overtime, allowances & bonuses.	Actual average earnings in the wage period.	Average basic Wages earned in the wage period by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	No. of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Dippers	I, II, III.	Males	T	9	3	3	0 11 1	0 13 1	0 13 1	6 8 11	5 8 11	6 8 11	8
Packers ..	Day	„	„	„	16	16	0 8 0	0 10 11	0 10 11	4 13 8	3 15 4	5 3 8	„
Paraffin dippers ..	„	„	„	„	2	2	0 7 5	0 10 7	0 10 7	5 9 10	4 0 0	5 10 8	9
Box-filling	Gen.	„	„	„	4	4	0 6 8	0 8 10	0 8 10	4 6 8	3 5 4	4 6 8	8
	I, II, III.	Fem.	P.	„	76	24	0 6 3	0 6 3	0 6 3	1 13 9	2 9 6	2 9 6	6
		Chd.	„	5	102	20	0 5 7	0 5 7	0 5 7	1 14 6	2 0 4	2 0 4	6
Banderolers		Fem.	„	9	52	61	0 6 1	0 6 1	0 6 1	1 15 4	2 5 8	2 5 8	6
		Chd.	„	5	20	10	0 5 6	0 5 6	0 5 6	1 12 9	2 2 7	2 2 7	6
Dipping Boys ..	Day	Males	T	9	17	17	0 4 3	0 5 10	0 5 10	2 13 5	2 3 7	3 0 11	8
Total ..					292	157							

banderoling and labelling. The semi-skilled and skilled staff consists mostly of males who are monthly-rated. Their salaries vary from Rs. 15 to Rs. 30 although at Shivakasi some foremen are paid about Rs. 60|- p.m.

The figures given in Table X, relating to one of the factories at Shivakasi illustrates the position regarding wages and earnings of workers engaged in certain numerically important occupations.

Housing.—As the workers reside close to the factories in their own homes, the employers provide no housing. It is noticeable, however, that the workers' homes are extremely clean and well lighted and although both Sattur and Shivakasi are mainly industrial towns now, no slums have arisen as a result of the growth of factories there.

Welfare Work.—None of these factories is doing any work by way of welfare. There is no provision made for the worker's future, nor is there much security of tenure so far as day-to-day employment is concerned.

The owners of these factories are not well organised and it is understood that there is fierce competition amongst them leading to constant price-cutting. It is obvious that the wages paid are extremely poor and that nothing at all is being done to look after the welfare of the operatives.

Although the Maternity Benefit Act applies to these factories few cases of the payment of maternity benefit appear to be in evidence. It is doubtful also whether the provisions of the Factories Act are being strictly followed by these factories in regard to hours of work, age of employment, etc.

CHAPTER V.—ASSAM.

At Dhubri in the Goalpara district of Assam, there is a match-factory belonging to the Assam Match Company, a sister company of WIMCO. It was established about the year 1925.

Employment.

As compared to the pre-war period, employment in this factory has nearly trebled ; while in August 1939, the number of persons employed was 355 only, it rose to 889 on lst January 1944, the figure for February 1945 being 1,001. Slightly over half the number employed is on a piece-rate basis. The factory employs only male workers. There is no contract labour and all the workers are paid directly by the company itself. The workers are all designated as permanent. No service records are kept but it is understood that the labour in this factory is, on the whole, stable. Absenteeism amounts to about 10 to 12 per cent. As the workers hardly ever put in an application for leave stating the cause for which it is required it is difficult to analyse the causes of absenteeism but enquiries made on the spot suggest that absenteeism is greater during the harvesting season when the workers like to retire to their villages for agricultural operations. Absenteeism is also more in evidence on the day following the pay day.

Labour is recruited at the factory gates. Although technically all the appointments are made by the Manager, actually they are made on the recommendation of the mistry. There is no Labour Officer or any other separate agency for recruiting the workers.

Working conditions.

This factory is highly mechanised. It is lit with electricity. Working conditions inside are fairly satisfactory, although some of the departments are very warm inside as the entire structure of the factory is made of corrugated iron sheets. Exhaust fans have been installed in one department, namely, the sawing department for sucking the dust.

Note.—I am indebted to Mr. S. P. Saksena, statistician, Office of the Director, Cost of Living Index Scheme, for collecting the spot information relating to this factory.

Hours of work and shifts—This factory works two shifts of 9 hours each. The first shift commences at 7 a.m. and ends at 5.30 p.m. with an interval of 1-1|2 hours. The second shift begins at 6.30 p.m. and ends at 4.30 a.m. with an hour's interval. It is stated that as the workers live close to the factory no rest shelters have been provided.

Wages and Earning.—It was not found possible to conduct a wage census in this factory and the information relating to wages and earnings is based on such *ad hoc* investigations as could be carried on the spot supplemented by the information supplied by the management.

Appendix V contains information regarding the earnings of the workers excluding allowances in February 1939 and February 1945. It is reported that the basic rates, both piece and time, have not been radically changed since the War although, as a result of larger production, the piece workers particularly are able to earn more. The daily rate of wages of unskilled workers such as coolies, sweepers, etc. is As. 11 or Rs. 17-14-0 for a month of 26 working days. The following summary statement gives the *fortnightly* maximum and minimum earnings (excluding allowances) in February 1945, in selected occupations :

TABLE XI.

Department.	Maximum			Minimum.		
	Rs.	a.	p.	Rs.	a.	p.
Frame Filling	22	6	0	17	5	0
Inner Box-making	21	7	0	16	4	0
Outer Box-making	19	8	0	14	5	0
Box closing						
Helpers	14	6	0	11	8	0
Drivers	16	1	0	13	4	0
Box filling						
Helpers	13	0	0	10	2	0
Drivers	19	14	0	15	12	0
Banderolers	16	4	0	12	2	0

Workers employed in the Dipping and Paraffining department seem to earn the highest wages, the maximum and the minimum being Rs. 42 and Rs. 37-2-0 per fortnight respectively.

In addition to the basic wages this factory pays a number of allowances and bonuses. These are (a) Dearness allowance, (b) a production bonus, (c) attendance bonus, (d) grain allowance and (e) profit bonus. All these are of a temporary character and are shown separately in the muster rolls.

Dearness allowance is paid at the rate of 2 annas per rupee of the basic wage. The production bonus is paid at the rate of annas 4½ on a production of over 80 boxes per day. The earning from this bonus is naturally dependent on the worker's production but generally it comes to about annas four to annas five per rupee of basic wages. Attendance bonus is paid at the rate of annas two per day of attendance and no minimum attendance has been laid down to qualify for this bonus. In addition another allowance allied to attendance called the grainstore allowance is paid at the rate of annas six per day. For purposes of the payment of this allowance absence up to 1½ days in a fortnight is condoned. If absence exceeds 1½ days in a

fortnight then the allowance is paid pro-rata for days of attendance. Otherwise, the allowance is paid for the whole of the fortnight including Sundays. Thus a box-filling helper getting Rs. 13 per fortnight will get in addition, if he puts in full-time attendance, about Rs. 12-9-0 by way of allowances or will receive a monthly wage of about Rs. 51-2-0.

The Company also pays a profit bonus. This amounted to 1½ months' wages in 1941, and to two months' wages in subsequent years.

The wage period is a fortnight and wages are paid generally on the seventh day after they become due. No fines are imposed and no fine fund is therefore maintained.

Housing.—The Company has provided accommodation for only 18 workers. Half of these quarters are single-roomed and the other half doubled-roomed. The single-room quarters are again of two types, the only difference being in the size of the rooms. The single quarters have one room only, measuring 10 ft. × 6 ft. or 8 ft. × 6 ft. The double-room quarters have two rooms measuring 10 ft. × 8 ft. and 10 ft. × 6 ft. The rent of single-room quarters is Rs. 2-8-0 and that of the double-room quarters is Rs. 3-8-0 per month. The quarters are made of bamboo laths plastered with mud. The roofs are of corrugated iron sheets. These quarters are mostly occupied by up-country labour from the United Provinces. The local labour resides in the town in houses owned by themselves or by private landlords. There is only one well for the provision of water to the inmates of these quarters. Only one common latrine has also been supplied with five seats for the residents of this colony numbering about 150. There are no separate latrines for women and the sanitation is extremely poor.

Those who do not reside in the company's quarters usually live in the bamboo huts plastered with mud. The ground rent of such dwellings is annas eight per month. Where similar accommodation is obtained from private land-lords, the rate to be paid varies from Rs. 1-8-0 to Rs. 2-0-0 per month. Those coming from adjoining villages go back to their village homes from the factory every day.

Welfare work.—The company maintains a small dispensary in the factory premises. It is in charge of a doctor and there are two compounders to assist him. The dispensary appeared to be not particularly well-equipped.

In addition to a grain-store allowance paid, the company supplies grains and provisions to workers in limited quantities at government-controlled rates.

It is understood that with effect from the 1st April 1945, the company has introduced a Provident Fund scheme for its operatives. The membership of the fund will be open to all workers who have put in one year's service. Every member will contribute at the rate of Rs. 0-1-4 per rupee of his basic fortnightly wages. The company will contribute an equal amount. Fifteen years' completed service will entitle a worker to receive the full company's contribution. In the event of death, however, the worker will get the full contribution of the company even with less than 15 years' service. If a worker has completed only 10 years' service but less than 15 years, a proportionate amount varying from 50 to 90 per cent. of the company's contribution would be payable.

Apart from the recent institution of a Provident Fund Scheme, this company appears to be doing extremely little by way of welfare work for its operatives.

The workers have no Trade Unions of their own.

CHAPTER VI.—UNITED PROVINCE.

There were in U.P. in the year 1943, two match factories employing 1,013 persons. During the present enquiry only the factory at Bareilly, which is the largest, has been covered.

Employment.—At Bareilly there is a match factory belonging to the Western India Match Co. which employed, at the time of the enquiry, 1,078 persons. Slightly more than half were on piece rates. No women were employed although, it was reported, that the Company had in its employment 14 children. The labour is employed direct. As compared to the pre-war period the number employed has gone up by about 150, but not appreciably. Owing, presumably, to the good conditions of service in this factory, the percentage of those who have served the factory for more than five years is quite large as the following figures will show :

Length of Service.	*No. of workers.*	*Percentage to*
Those between 0 & 1 year of service.	110	10.2
„ „ 1 & 5 years of service.	450	41.8
„ „ 5 & 10 years of service.	356	33.0
„ over 10 years of service.	162	15.0

The labour turnover for 1942 in this factory as compared to 1943, however, has gone up considerably and was reported to be 17.5 per cent. The reason for this appears to be the more attractive wages paid in some of the jobs connected with the War. Normally absenteeism is about 15 per cent. Since the War the percentage of absenteeism has not shown any wide variations. The company has a Labour Officer and the labour is recruited direct. The relations between the employers and the employees are regulated by Standing Orders framed by the Employers' Association of Northern India, Cawnpore.

Working Conditions.—The factory is situated in the open and is well ventilated and lighted. The hours of work during the main shift are 8 a.m. to 1 p.m. and 2 p.m. to 6 p.m. There is adequate water supply for drinking purposes and also satisfactory sanitary arrangements.

Wags and Earnings.—As compared to the pre-war period, on the whole, there has been an increase of about 8 per cent. in the basic wages of the operatives in this factory. There are no graded or time-scale promotions.

A wage census was conducted in the principal occupations in this factory for the first fortnight of March 1944 and the following frequency table* gives the results of the census.

* Page 26.

TABLE XII.

Frequency Table Showing Wages and Earnings in the Match Factory Covered in the United Provinces.

Wage group.	No. of Workers.	Per centage.	Earning group.	No. of Workers.	Per centage.
Less than 4 as.					
4 as. but less than 6 as.					
6 as.....8 as.	2	0·8	Under 8 as.		
8 as.....10 as.	66	14·1	8 as. but less than 12 as. ..		
10 as.....12 as.	43	9·2	12 as....Re. 1 ..	2	0·8
12 as.....14 as.	51	11·1	Re. 1.....Re. 1/4 ..	59	12·3
14 as.....Re. 1	200	42·6	Rs. 1/4.....Rs. 1/8 ..	89	19·2
Re. 1.....Rs. 1/2 ..	32	6·7	Rs. 1/8.....Rs. 1/12 ..	226	48 2
Rs. 1/2.....Rs.1/4 ..	69	14·5	Rs. 1/12.....Rs. 2 ..	87	18·5
Rs. 1/4.....Rs. 1/8 ..	4	0·8	Rs. 2.....Rs. 2/4 ..	4	0·8
Rs. 1/8.....Rs. 1/12 ..	1	0·2	Rs. 2/4.....Rs. 2/8 ..	1	0·2
	468	100.0		468	100.0

It will be seen that nearly 42.6 per cent. of the workers are in receipt of a daily basic wage of as. 14 to Re. 1 and that over 48 per cent. have a daily net earning of between Rs. 1-8-0 to Rs.1-12-0. The average attendance per fortnight of 12 working days comes to 11.7 days.

The operatives in this factory get a dearness allowance varying according to income classes on the following scale :—

Wages per month.	Dearness Allowance.
	Rs. A. P.
On earnings upto Rs. 19	0 5 0 a rupee.
„ from Rs. 19 to Rs. 50	0 4 0 „
„ from Rs. 51 to Rs. 80	0 3 6 „
„ from Rs. 81 to Rs. 150	0 3 0 „

In addition to the above allowance, the workers are paid what is known as the index allowance, according to which, if the Cawnpore cost of living index rises above 200 then one pie per point rise for each working day is paid to all workers. The index for the census month March 1944 was 278 and the workers thus got an additional allowance of 6 as. 6 ps. per day.

The company also pays an annual bonus equal to 1|6th of the total basic wages on condition that the worker should have put in at least 75 days during the year to qualify for the bonus and be on its rolls on the date of the payment of the bonus.

The wage period for process workers is a fortnight and payment is made within ten days after the end of the wage period. No fines are imposed by this concern and therefore they have not instituted a Fine Fund. The factory is closed on Sundays, except when a festival falls within the week, and no other holidays are given to the workers. There is no system of granting leave with pay to process workers, although monthly-rated workers get 15 days' leave with pay.

Housing.—Fifteen per cent of the workers are housed by the Company in 90 quarters, half of which are two-roomed and the rest one-roomed with a verandah, kitchen, water tap, latrine and an enclosed courtyard. The rent of the former is Rs. 4|- per month and of the latter Rs. 2|- per month. The quarters are well ventilated and properly drained. The workers who are not housed by the employers have to live in the city where they pay rents varying from Rs. 2|- to Rs. 6|- per month for a single-room tenement which is more often than not in a deplorable condition.

Welfare Work.—The factory maintains a dispensary in charge of a part-time doctor. It serves tea once a day, free of charge, to its workers at their places of work. It has subsidised a Primary School and also runs a grain shop where rationed articles are sold at a concession of 15 per cent. up to the quota laid down by the rationing authorities.

There is no provident fund for the workers, nor is there any scheme regarding pension or gratuity.

The employees of this factory have organised themselves into a Co-operative Society which grants loans to workers at 3 per cent. interest up to four times their monthly pay.

General Observations.—The general conditions of work in this factory appear to be satisfactory and the labour force contented. The housing provided by the employers shows an appreciation of the needs of the workers and their families and it is to be hoped that the company will find it possible after the War to extend this beneficent activity to the rest of its operatives.

CHAPTER VII.—THE PUNJAB.

Employment.—There are only three match factories in the Punjab all of which are in Lahore. They employ 385 persons in all. All the three were covered for purposes of the present survey. Two of these are very small units, while the third one which belongs to the Western India Match Co. employes over 300 workers.

Unskilled labour is mostly recruited locally from Lahore and its surrounding villages. The skilled labour, however, is brought from outside, generally from Bilaspur in C. P. and Bareilly. The turn-over of labour is not very large, being about 8 to 9 per cent. In the largest match factory in Lahore absenteeism was reported to be only 4.1 per cent, while in the remaining two it was between 12 and 15 per cent.

Hours of work and shifts.—One of these concerns works two shifts, while the other two work only one shift of 9 hours each. Working hours are from 8 a.m. to 12.30 p.m. and 1.30 p.m. to 6 p.m., while the second shift is from 12.30 a.m. to 4.30 p.m. and 5.30 p.m. to 10.30 p.m.

Wages and Earnings.—A wage census was taken in all these factories for the month of April 1944 and the following table gives the frequency of wages and earnings.

TABLE XIII.

Frequency Table showing wages and earnings in the Match factories covered in the Punjab.

Daily Basic Wages			Daily net Earnings.		
Wage group.	No. of workers.	Percentage.	Earning group.	No. of workers	Percentage.
Less than 4 as.	7	1·7	Under 8 as.	10	2·7
4 as. but less than 6 as. ..	1	0·2	8 as. but less than 12 as.	20	5·0
6 as. ,, 8 as. ..	19	5·0	12 as. ,, Re. one	16	4·0
8 as. ,, 10 ..	165	42·0	Re. 1 ,, Rs. 1/4	95	27·3
10 as ,, 12 ..	79	23·0	Rs. 1/4 ,, Rs. 1/8	63	16·0
12 as. ,, 14 ..	56	14·5	Rs. 1/8 ,, Rs. 1/12	85	20·3
14 as. ,, Re. 1 ..	11	3·0	Rs. 1/12 ,, Rs. 2	24	6·0
Rs. 1 ,, Rs. 1/2 ..	20	5·0	Rs. 2 ,, Rs. 2/4	22	5·6
Rs. 1/2 ,, Rs. 1/4 ..	..	..	Rs. 2/4 ,, Rs. 2/8	30	8·1
Rs. 1/4 ,, Rs. 1/8	6	1·7	Over Rs. ,, Rs. 2/8	20	5·0
Rs. 1/8 ,, Rs. 1/12	5	1·5			
Rs. 1/12 ,, Rs. 2 ..	1	0·2			
Over Rs. 2 ,, ..	15	2·2			
	385	100·0		385	100·0

It will be seen that about 72 per cent. of the workers earn a daily basic wage of less than 12 as., the daily net earning less than Rs. 1-4-0 in the case of 39 per cent. of the operatives. The largest concentration of the workers is in the earning group Re. 1 to Rs. 1-12-0.

It was reported that all the three factories had increased the basic wage rates from 50 to 140 percent, increase of 50 percent being in the largest unit in Lahore. The factories which have given the higher increase in the basic wages pay no allowances but the third factory pays both a dearness allowance and what is called an index allowance. The dearness allowance is graded according to the income and is paid on the following scale :—

As. 5-0 per rupee for wages up to Rs. 19 p.m.
As. 4-0 „ „ „ „ „ Rs. 20—50 p.m.
As. 3-6 „ „ „ „ „ Rs. 51—80 „
As. 3-0 „ „ „ „ „ Rs. 81—150 „

The index allowance is presumably based on the rates decided upon by the Employers' Federation at Cawnpore. This allowance, however, is conditional on the worker not remaining absent without leave. The rate is As. 6-6 per working day. This concern also pays an annual bonus equal to one-sixth (1/6) of the total wages earned in the preceding year in four equal instalments subject to certain conditions. It is reported that about 60 per cent. of the workers earn the bonus.

Housing.—One of the factories provides free housing for all the workers, while the biggest unit provides free housing for 25 per cent. of its operatives only. They are mostly one-room tenements and the conditions of ventilation and sanitation in them are none to good. It was reported that during floods some of the workers in these quarters were put to great hardship, as the flood water entered their tenements.

Welfare.—One of the factories maintains a dispensary with a part-time doctor attending twice a week. On the whole, so far as these factories are concerned medical aid appears to be inadequate. In all the three factories workers are given advances against their wages but even so, many of them appear to be indebted and have to pay high rates of interest on the money borrowed. There is no provision for the future of the workers made by any of these factories, such as the establishment of a provident fund, payment of gratuity, etc.

Special Problems.—The workers employed in the match industry at Lahore complained that, if they wanted to leave the service of their employer, they were refused a service certificate which they considered as a great hardship. They also stated that such of them as dared to represent their case to the management for an increase in their remuneration were apt to be discharged. They pleaded that no provision existed at present for safeguarding their future and suggested the establishment either of a system of pensions or Provident Fund.

CHAPTER VIII.—CENTRAL PROVINCES.

Employment.—The first match factory in the Central Provinces was started about the end of the last century at Kota. The industry has not made much progress in this province and there are at present only three units situated at Nagpur, Chanda and Kota employing 273 persons. For purposes of the present survey only the factories at Kota and Chanda have been covered. Both of these are very small units and employed 17 and 182 persons respectively at the time of Survey. In one of the factories the children employed appeared to be below the age of twelve.

Both at Kota and at Chanda the labour is mostly local., The Kota workers are agriculturists and work in the factory only to find a supplementary occupation. Labour is recruited direct and not through contractors. In the majority of cases the relatives and friends of workers get preference for employment. The Kota factory which is the longest established has very little labour turn-over and the majority of the employees have put in five or more years of service. In the Chanda factory also the turn-over is not large, although since it was only established in the year 1937, there are not many workers in it with more than five years' service. The main reason for the small turnover is that there are no alternative sources of employment in these two centres. Absenteeism varies from about 12 to 15 per cent. and is largely due to sickness caused by malaria.

Hours of work and shifts.—In one of these factories only one shift is worked while the other follows the relay system. In neither of the factories do the working hours exceed nine. Over-time is only occasionally worked. Neither of these factories is mechanised to any considerable extent. The working sheds are fairly well-lighted and ventilated although there is a certain amount of congestion in them owing to the tendency to dump the material required for the manufacturing processes in the sheds themselves. The arrangements for supplying drinking water are fairly satisfactory and so are those relating to urinals and latrines. At Kota, Monday is observed as a holiday being the bazaar day, while the factory at Chanda is closed on Sundays. In one of the factories monthly-paid workers get 21 days' leave in the year with pay, while in the other leave with pay is granted at the discretion of the management and amounts to about 15 days in the year. In neither of the factories are there Standing Orders for the operatives.

Wages and Earnings.—In both of these factories about 60 per cent. of the workers are on a time-rate basis. At Kota wages are paid every week while at Chanda the wage period is fortnightly. There are no undue delays in the payment of wages.

A wage census of all the workers was taken for the month of March 1944 and the first week of March 1944 in the Chanda and Kota factories respectively.

Owing to differences in the wage period and the nomenclature of occupations it is difficult to discuss the results of the census in these two factories. It is, however, seen that in the factory at Chanda the average daily earnings vary from about six annas to twelve annas. Women workers earn as little as four annas per day both at Chanda and at Kota. In Chanda the lowest wage earned for 12 working days was Rs. 3 only, the highest being Rs. 9-0-9.

The following table sets out the frequency of daily earnings in these two factories :

TABLE XIV.

Frequency table showing the earnings of workers, in two Match factories covered in Kota and Chanda, C.P.

Earning groups.	No. of workers.	Percentage
Less than 4 as.	45	19·2
4 as but less than 6 as.	95	40·4
6 " " 8 "	42	17·9
8 " " 10 "	24	10·2
10 " " 12 "	11	4·7
12 " " 14 "	8	3·4
14 " " 1/-	1	0·4
	226	96·2

TABLE XIV—*Contd.*

Earning groups			No. of workers	Percentage
		Brought forward	226	96·2
1/- but less than	1/2	.. ..	5	2·1
1/2 „ „	1/4	.. ..	2	0·9
1/4 „ „	1/8	.. ..	1	0·4
18 „ „	1/12	.. ..	..	..
1/12 „ „	2/-	.. ..	..	..
Over Rupee 2		.. ..	1	0·4
			235	100

It is clear from the table that 77.5 or nearly 78 per cent. of the workers in these factories earn under annas eight per day. Personal investigation on the spot revealed that even the most hard working and conscientious pieceworker in these factories cannot hope to earn more than annas ten per day.

Neither of these factories gives a dearness allowance, but it is reported that they have increased the basic wage rates as compared to the pre-war period by about 100 per cent. One of these factories has a grain shop where rice and jowar are sold at half the market rates. The cost of the concession to the factory works out at about one anna three pies (0-1-3) per head per day. The factory at Chanda paid a bonus of two months' wages in 1944.

Housing.—At Kota about 75 per cent of the workers are staying in quarters provided rent-free by the factory management. Each room is about 10 ft. × 9 ft. with a court-yard in front. They are pucca structures of bricks and tiles. Very little or no arrangement exists for sanitation. At Chanda most of the workers live in their own huts.

General observations.—The size of the units as also the total number employed in the match industry in Central Provinces is so small as not to warrant much detailed discussion. It is, however, understood that there are certain evasions of the Factory Act in regard to attendance on holidays, payment for over-time, etc. In regard to maternity benefit also, there seems to be a certain amount of evasion because in one of the factories started in 1937, there has not so far been a single case of the payment of maternity benefit although the factory employs about 55 women. The wage level in these factories appears to be as low as the one prevailing in some of the South Indian centres such as, Sattur and Shivakasi. This is probably due to the plentiful supply of labour and the absence of alternative sources of employment.

(*ii*) INDIAN STATES.

CHAPTER IX.—SHIMOGA—MYSORE STATE.

There was only one small match factory at the time of the enquiry in Mysore State which was situated in Shimoga town of the State. The number of persons employed is about 250. This is not a very highly mechanised concern and in some of the departments such as box-filling and bandroling the work is given on contract on a piece work basis to women employees numbering about thirty.

The labour employed is mostly local. Recruitment is made by the Technical Chemist of the factory at the gate. There is no temporary or substitute labour and all are regarded as being permanent.

Working conditions inside the factory can be regarded as being satisfactory and the surrounding atmosphere of the factory is clean and healthy. Only one shift is worked and the shift hours are 8.30 a.m. to 5 p.m. with an interval of half an hour.

Wages.—A wage census of all the workers in this factory was taken for the month of January 1944 and the following table contains the results of the census for principal occupations.

TABLE XV.

Table showing the wages and earnings in selected occupations in the Match Factory at Shimoga (Mysore State).

Occupations.	Shift.	Sex.	No. of hours of work per shift.	Piece or Time rate.	No. of workers.	No. of samples taken.	Average daily basic wages earned. Rs. A. P.	Average daily gross earnings including overtime, allowances and bonuses. Rs. A. P.	Average daily net earnings including overtime, allowances and bonuses. Rs. A. P.	Actual average net earnings in the wage period. Rs. A. P.	Average Basic wages earned in the wage period by samples with full attendance. Rs. A. P.	Average net earnings in the wage period of samples with full attendance. Rs. A. P.	No. of working days in the wage period.
Carpenters	1st	Male	8	T	1	1	1 3 0	2 3 2	2 3 2	37 6 0	..	..	25
,, ...	,,	,,	8	T	1	1	1 1 0	1 4 9	1 4 9	28 8 0	..	..	25
Drivers	,,	,,	8	T	1	1	0 10 0	0 13 9	0 13 9	20 10 0	..	..	25
,, ...	,,	,,	8	T	3	1	0 8 0	0 10 1	0 10 1	12 11 4	..	..	25
Splint	,,	,,	8	T	3	3	0 8 0	0 10 10	0 10 10	13 12 8	..	..	25
Dressers	,,	Fem.	8	T	5	5	0 5 0	0 8 4	0 8 4	12 9 0	7 13 0	12 12 0	25
Coolies	,,	,,	8	T	3	3	0 5 0	0 8 5	0 8 6	12 10 2	7 13 0	12 13 0	25
Box Section Helpers ..	Day	Male	8	T	14	4	0 7 10	0 10 11	0 10 11	13 5 0	11 14 0	16 4 5	25
Log Pushers	,,	,,	8	T	10	10	0 8 3	0 11 10	0 11 10	14 3 7	10 15 0	16 3 0	25
Filling Section Machine Drivers ..	,,	,,	8	T	14	14	0 8 5	0 11 8	0 11 8	15 13 10	12 3 10	17 3 10	25
Labelling Section .. Machine Driver ..	,,	,,	8	T	8	8	0 5 8	0 8 6	0 8 6	10 7 0	9 0 0	13 12 6	25
Box Makers	,,	Fem.	8	T	7	7	0 5 0	0 8 3	0 8 3	12 10 9	7 13 0	12 13 0	25
Dozen Packeteers	,,	,,	8	T	7	7	0 5 1	0 8 2	0 8 2	9 0 0	..	..	25 No. F.T*
Label Box Arrangers ..	,,	,,	8	T	7	7	0 5 1	0 8 4	0 8 4	11 3 10	7 13 0	12 13 0	25
Bandroling & Hand Filling Section	,,	,,	8	T	7½	7	0 4 8	0 8 0	0 8 0	12 1 3	6 9 0	11 9 0	25
Total ..	..	..	..	..	91	79							

*F.T.—Full-Timers.

It will be seen that apart from skilled workers like carpenters, drivers etc., the daily basic wage rate for female labour is about annas five per day and annas six to annas eight for males, the average daily earnings including allowances being annas eight in the case of females and about annas 11 to annas 12 in the case of males. Out of the 25 working days in the census month the average attendance was found to be 19.5.

An examination of the frequency* of earnings in this factory shows that nearly 83 per cent. of the operatives were in receipt of under annas 12 per day.

It is reported that as compared to the pre-war period there have been considerable alterations in the structure of the basic wages and the increases given amount to about 40 per cent. of the basic rates.

Dearness allowance is paid at the rate of Rs. 5 to those earning Rs. 50 and below per month and at the rate of Rs. 7-8-0 per month to those with an income of Rs. 50 to Rs. 80 and at the rate of Rs. 8 to those earning between Rs. 80-0-0 and Rs. 100 p.m.

A bonus at the rate of one month's wages was paid to all those who had put in at least 75 days' attendance in a year in 1943.

The wage period is a month and the period elapsing between the date on which wages become due and are paid is about a week. The employees are allowed two days' paid holiday in the year and there is also a system of granting 14 days' privilege leave to all daily-rated workers on the completion of 12 months' service.

Housing.

As the labour force in this factory is mostly local or drawn from surrounding villages, it has not been found necessary by the management to supply any special housing accommodation to employees.

Welfare work.

There is a canteen in this factory run by a contractor. The management supply the building and the utensils free of charge. It would appear that apart from arrangements made for rendering first-aid, no special medical facilities are supplied to the workers in this factory.

There is a scheme of Provident Fund in this factory to which the employers and employees contribute one anna per rupee per month of the employee's earnings. Only those earning annas twelve per day are allowed to subscribe. Those who are not allowed to subscribe to the Provident Fund are entitled to a Service Gratuity after 15 years' service at the rate of a month's salary for every year of service.

CHAPTER X.—BARODA.

There is one small match factory in Petlad in Baroda State. The Committee's staff has made no *ad hoc* survey in this factory but the following information has been obtained through the courtesy of the Acting Director of the Department of Labour, Baroda.

The factory was established in the year 1930 and employs about 230 persons. Part of the labour force is employed through contractors but paid directly by the factory. There are no Standing Orders for operatives.

The hours of work in this factory are ten, the spread-over being 11. Only a single shift is worked.

The working conditions inside this factory are, it is reported, satisfactory. A rest shelter has been provided for the workers which measures 80 ft. × 50 ft.

* Vide Appendix VI(a) and (b).

Wages and earnings.—The average earnings of the least skilled workers such as coolies, including allowances, appear to be about Rs. 24 per month, the minimum basic wage varying from Rs. 10 to Rs. 13 per month in the case of coolies.

The factory is paying a dearness allowance at four annas per day to its workers.

There is no system of fining.

Wages are paid monthly on the 9th of the following month. The factory is closed on four days in the month and in addition, the workers get holidays on certain festivals.

Housing.—As the workers in this factory come from adjoining villages, no provision has been made for housing. All the workers stay in their own homes.

Welfare work.—The factory has no dispensary for the work people but patients are sent to private practitioners or to the Government hospital. It runs a canteen on a non-profitable basis and refreshments are sold at a price of about 25 per cent less than the market price. There is a crèche in the factory. No special facilities are provided for the education of the workmen's children. The factory runs a grain shop where commodities are sold at cost price or at controlled rates, whichever is less.

PART III.

CHAPTER XI.—SUMMARY AND CONCLUSIONS.

The Match Industry is, comparatively speaking, of very recent origin and growth. The number employed in it is about 16,000 only and as such it cannot be considered as one of the principal industries of the country. At the same time it provides the State with an income of nearly five crores of rupees per annum by way of excise revenue. It has also certain special features. For instance, as a result of protection even before the War the imports of matches had diminished to almost nil and the requirements of the whole country are being met to-day by the local manufactures. Indian matches are also making gradual incursions in foreign markets. Secondly, although there are 150 odd match factories in the country, nearly 80 per cent. of the production is contributed by six or seven factories belonging to a single combine, namely, the Western India Match Company, an Indian public limited company with rupee capital but largely controlled by non-Indians (including the Assam Match Company which is a sister company of the WIMCO). The industry also presents a study in contrast in so far as the equipment of the factories, managerial skill and ability and labour conditions are concerned. At one end we find highly mechanised concerns with the most up-to-date machinery, managements possessing the highest technical qualifications and speaking generally, fair conditions of labour and on the other, godowns and sheds called factories in which the only machinery is a few simple gadgets, managers who are no better than untrained clerks and totally sweated conditions of labour with long hours and low wages.

In part II of this Report the conditions of work and wages in the 20 factories surveyed for purposes of the present enquiry and employing about 8,400 workers or about 52.5 per cent. of the total employed in the industry have been described in some detail. It remains now only to summarise the results.

No reliable and up-to-date statistics relating to the number of match factories and the number employed in them are available, but it would appear

that since 1939 there has been a rise in the number of factories from 113 to 150 in 1945. The total volume of employment in the industry has, however, remained the same, viz., about 16,000 employees.

Nearly half the workers in the industry are on a piece-work basis. There is little employment of women and children except in the factories in the South and in the Central Provinces. In the bigger units of the industry the turn-over of labour is small ; nor is the percentage of absenteeism high. Except in the South where home workers are given work on a piece-rate basis, all labour is employed and paid directly by the employers. There are no Standing Orders for operatives except in the WIMCO's factory at Bareilly.

On the whole, the working conditions inside the match factories are satisfactory. Due attention is paid to lighting and ventilation in the larger factories and in the smaller units as there is not much machinery the conditions of work are not too unpleasant. While, however, the larger units have made fairly adequate arrangements for the supply of drinking water, sanitation, etc., the same cannot be said of the smaller units of the industry. The provision of rest shelters, créche etc., is the exception rather than the rule.

The hours of work are usually 9 per day. In some cases, 10 hours are worked on week days and Saturday is observed as a half holiday. Generally only one shift is worked. There is no system of multiple shifts except in the WIMCO Match Factory at Ambernath.

There has been no radical alteration in the basic wage structures of the industry although, owing to the shortage of unskilled labour the daily rates of wages of coolies etc., have been increased in many cases since the War.

There is no standardisation of wages in the industry ; nor does one find the same rates of wages in the different units belonging to the WIMCO. The nomenclature of occupations varies from factory to factory and it is a matter of considerable difficulty to compare the wage rates and earnings in different occupations of the industry. The only manner in which this can be done is by comparing the wages and earnings groups in the different factories. The data collected during the Wage Census already referred to have been tabulated according to wages and earning groups and are given in Appendix VI (a) and (b). The following frequency* table showing wages and earnings in Match factories is of interest.

It will be seen that the highest wage rates are to be found in Bombay, Madras and Bareilly. Quite a large percentage (or 43 per cent. of the total) of the workers in Calcutta are in the wage group of annas twelve and below. In Mysore, Central Provinces and Ramnad district of Madras Presidency, almost the whole of the labour force has a basic wage below annas 12 per day.

Owing to the high rate of dearness allowance prevailing in Bombay, as many as 58.6 per cent. of the workers there have a daily earning of Rs. 2 and over. In Lahore the percentage of such workers is 18.7. The earnings figures for Madras must be viewed in the light of the fact that the workers get a substantial portion of the dearness allowance in kind which explains why in spite of high wage, there are not many workers in the earning category of Rs. 2 and over per day.

There is no uniformity either in regard to the policy or the scale for the payment of dearness allowance in the industry or even as between different units in the same centre or in units in the different centres belonging

* Page 35.

TABLE XVI.

Frequency Table showing the average daily basic wages and Earnings of Workers employed in 20 Match Factories surveyed in 8 centres in India.

Centres.	Below annas 12				As. 12 but less than Re. 1				Re. 1 but less than Rs. 1/8.				Rs. 1/8 but less than Rs. 2				Rs. 2 and over.			
	Basic wages.		Earnings.		Basic wages.		Earnings.		Basic wages.		Earnings.		Basic wages.		Earnings.		Basic wages		Earnings.	
	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	%to total.	No. of workers.	% to total.	No. of workers.	% to total.	No. of workers.	% to total.
Bengal (Calcutta)	872	43·1	251	12·5	221	11·6	639	31·9	618	30·7	297	14·8	276	13·7	562	28	19	0·9	257	12·8
Bombay	177	12·6	147	10·4	512	36·2	59	4·2	612	43·2	76	5·4	75	5·3	303	21·4	38	2·7	829	58·6
Madras (a) Tiruvattiyur ..	6	0·9	..	..	132	19·0	10	1·3	499	71·9	409	60·0	50	6·9	233	33·1	10	1·3	45	5·6
(b) Ramnad	530	99·6	524	96·6	2	0·4	16	3·0	..	..	2	0·4	..	..	..	..	..	..	..	..
United Provinces (Bareilly) ..	111	24·1	..	..	251	53·7	2	0·8	105	22·0	148	31·5	1	0·2	313	66·7	..	..	5	1·0
Punjab (Lahore)	271	71·9	30	7·7	67	17·5	16	4·0	26	6·7	158	43·3	6	1·7	109	26·3	15	2·2	72	18·7
Central Provinces	217	92·4	217	92·3	9	3·8	8	3·5	8	3·4	8	3·4	..	..	1	0·4	1	0·4	1	0·4
Mysore State (Shimoga) ..	192	88·9	179	82·9	15	7·0	18	8·3	8	3·7	13	6·0	..	..	2	0·9	1	0·5	4	1·9

to the same company. Thus, at Ambernath, in the WIMCO factory, dearness allowance is paid at the rate of nearly Rs. 30-0-0 per month to all the operatives, while in the Madras factory belonging to the same management only a nominal cash daily allowance of anna one and four pies (0-1-4) per rupee is paid and the rise in the cost of living is mainly met by supplying food grains etc. to the workers at pre-war rates. Some factories pay no dearness allowance at all, while yet others pay as low a dearness allowance as annas two per rupee of earning.

Except at Ambernath in Bombay and at Lahore where the WIMCO Company houses about 30 per cent. of its labour, the industry as such has done little for housing its employees as only about 10 per cent. of the labour is accommodated in the quarters built by the employers in the industry. It should, however, be remembered that in some centres like Madras, the workers who come from the adjoining villages prefer to stay in their own village homes. At the same time in some centres like Calcutta, Lahore, Bareilly etc. in the absence of provision for housing accommodation by the employers the workers are forced to live in dingy private tenements and to pay very heavy rents. The need for employers housing is thus fairly acute in this industry. It is understood that already some of the employers are planning extensions of their housing schemes but that these schemes have had to be held in abeyance because of the unavailability of building material etc. at reasonable prices.

The standard of housing accommodation provided by the employers varies from centre to centre. For instance, at Bareilly and Kota the housing conditions appear satisfactory. On the other hand, in centres like Lahore, they leave considerable room for improvement both in regard to the accommodation supplied, ventilation, sanitation etc. Except at Kota in the Central Provinces where all the workers are housed free of rent, the workers in other centres are charged rent which is generally lower than what they would have to pay for similar accommodation provided by private landlords.

The following summary table gives the percentage of workers housed by the employers in the different centres covered, which may be of interest:

TABLE *XVII*.

Centres.	No. of Units coverd.	No. of workers in Units in column 2.	Percentage of workers housed by employers.
(1)	(2)	(3)	(4)
Calcutta	5	2,412	*Nil.*
Bombay	3	1,497	30·83
Madras (including Ramnad and Shimoga) ..	4	1,582	5·30
Assam	1	1,001	2·0
Bareilly, U. P.	1	1,078	15·0
Lahore (Punjab)	3	385	30·90
Central Provinces	2	199	5·50
Baroda	1	230	..
	20	8,384 (Weighted average)	10·1

With the exception of the factory at Ambernath in Bombay, the industry as such seems to lag considerably behind some other industries in the country so far as the standard of welfare work is concerned. Beyond the provision of a dispensary and a grain shop and occasionally of a school and a canteen, welfare activities in the industry do not seem to travel further. Nor has adequate provision been made for safeguarding the future of the workers except in the factories at Bombay and Shimoga where a Provi-

dent Fund has been instituted and there is also a system of paying a Service Gratuity. The WIMCO factories at Bombay and Calcutta have a Provident Fund for their employees but the fund is either open to monthly rated workers or to those earning over a certain amount and thus the majority of employees remain outside the purview of these funds. In this connection the Assam Provident Fund Scheme has much to commend itself. It would appear that at least the well-established factories in the country must immediately consider the possibility of starting schemes for safeguarding the future of the workers and ensuring that such schemes embrace the bulk of their operatives.

Only in the factories at Ambernath, Madras and Bareilly are there full-time and well-qualified Labour Officers.

Trade Unionism in the industry is extremely weak and except for the Union of the workers in the factory at Madras no other Match Workers' Union appears to have been recognised by the employers.

Whether one sees match workers operating complicated machines or working on simple gadgets or making match boxes with their own hands, one does not fail to notice their alertness, skill and dexterity. And it is gratifying that this has been recognised by the leading employers in the industry as will be seen from the following extract from an article* on the subject :

"A great advantage enjoyed by factory managers in India is the abundance of cheap labour which can be trained by expert supervisors to operate the various intricate machines efficiently and keep them functioning smoothly....

In well-organised plants, the employee-production ratio is satisfactory even in comparison with European industrial standards. It has been roughly computed that were all-India's needs met by a series of modern and efficient factories, the total number of hands required would not exceed 8,000 to 10,000".

This highly protected industry has the necessary raw material locally available ; it has an abundant supply of cheap and efficient labour and its future is therefore assured. Taking its sheltered position into consideration, it cannot be said that the industry as a whole is giving an entirely fair deal to its labour. In the smaller units of the industry specially, there is very large room for the improvement of labour conditions. Presumably such units are finding it difficult to compete with so powerful a combine as the WIMCO with its highly mechanised factories and already the process of disintegration of such factories had started even before the present War. While it is of the utmost urgency that conditions of work and wages in such factories should be improved, steps must, at the same time, be taken to see that between what seems an unequal battle between machine and man, they are not allowed to languish and to die. For, taking into consideration the economic background of the country, particularly in the South, their extinction may mean unemployment and destitution not only for the thousands they directly employ but also for many hundreds of families of cottage workers, who are partially dependent on them for their livelihood.

S. R. DESHPANDE,

Simla, 11-6-45.

*Article on "The Match Industry in India" contributed by the Western India Match Co., Ltd., Bombay, to the Dictionary of Economic Products and Industrial Resources of India and reproduced in the Journal of Scientific and Industrial Research, July 1944—page 32.

APPENDIX I.

Statement showing the number of Match factories in British India and the number of persons employed in them from 1931 *to* 1943*.

Year.	Madras.	Bombay.	Bengal.	U.P.	Punjab.	Bihar.	C.P.	Assam.	Delhi.	Total.
1931	1	13	13	2	1	..	1	1	..	32
	997	4697	5282	885	137	..	124	410	..	12532
1932	1	13	14	1	1	..	1	1	..	32
	642	5124	5092	643	171	..	132	333	..	12167
1933	1	12	13	1	2	..	1	1	..	31
	548	4653	4991	665	197	..	100	336	..	11490
1934	1	12	16	1	2	..	2	1	..	35
	724	5395	6059	607	279	..	206	419	..	13689
1935	2	14	20	1	3	..	2	1	1	44
	667	5950	6333	901	409	..	203	377	34	14874
1936	5	9	20	2	4	..	2	1	1	44
	857	4416	5560	1120	462	..	197	363	168	13143
1937	72	7	17	3	2	..	3	1	..	105
	3218	2703	4899	1163	374	..	*230	311	..	12898
1938	52	6	17	6	2	..	3	2	..	88
	2758	2439	5400	1166	237	..	202	463	..	12765
1939	48	7	16	6	2	..	3	3	..	85
	2888	2264	4728	1074	367	..	114	595	..	12030
1940	66	6	17	3	3	..	2	3	1	101
	3520	2087	4062	935	394	..	69	587	90	11744
1941	62	6	16	4	3	..	3	2	1	97
	3239	1999	4628	975	349	..	151	583	90	12014
1942	66	4	9	3	3	..	2	1	1	89
	3188	1507	2230	937	375	..	199	657	38	9061
1943	67	4	9	2	3	1	3	1	..	90
	3349	1740	2574	1013	366	262	183	925	..	10412

* From ' Statistics of Factories '.

APPENDIX II.

Statement showing the maximum and minimum daily rates of wages in the Western India Match Co. Ltd. Madras.

Power House, Workshop & Yard.

Serial No.	Class of Worker.	Rates of daily wages. Maximum.	Minimum.
1	Engine Driver	2 0 0	1 12 0
2	Fireman	1 11 0	1 9 0
3	Pipe Fitter	2 2 9	
4	Boiler	1 13 3	
5	Mason	1 10 9	
6	Turner	2 2 9	1 12 6
7	Shaper	2 5 6	
8	Tinker	1 10 3	
9	Blacksmith	2 12 6	
10	Hammer Man	1 4 6	
11	Fitter	2 6 0	1 8 6
12	Carpenter	2 0 6	1 0 0
13	Apprentice	1 4 0	0 12 0
14	Cooly	1 4 0	0 12 0
	Box-filling, Banderolling, Labelling & Packing Depts.		
1	Fitter	1 10 0	2 5 0
2	Chemical Grinder	1 5 3	
3	Transporter	0 14 3	
4	Paper Cutter	1 8 0	
5	Paper Cutting Helper	0 14 3	
6	Sweeper	0 13 6	
	Box-making and Box-closing Departments.		
1	Turner	2 2 9	
2	Fitter	1 4 6	2 5 3
3	Sweeper	0 11 0	0 13 6
	Peeling and Levelling Departments.		
1	Fitter	2 2 0	1 15 6
2	Grinder	2 2 9	
3	Saw Filer	1 14 0	
4	Sieving Boy	0 12 9	0 11 0
5	Drum Cleaner	1 2 3	
	Continuous Department		
1	Fitter	1 15 9	1 4 9
2	Oil Man	1 7 9	
3	Chemical Grinder	1 3 9	0 13 6
4	Sweeper	0 13 6	

Piece Rate Earnings per day of 9½ hours.

December 1943.

Job.	Piece Rate Pies	Unit.	Actual Capacity per day.	Actual Earning per day Rs. a. p.
Cross Cutting Machine Man	1·19	Cony. layer	432	1 7 0
Helpers	2·22	,,		1 6 0
Splint Peeling Machine Man	6·19	Layer	56·5	1 13 0
Assistant	5·16	,,		1 8 6
Boys	4·44	,,		1 5 0
Splint Chopping	5·16	,,	45	1 3 3
	Impregnation			
Splint Drying	3·10	10 Trays	62	1 0 0
Splint Levelling	3·10	,,	81	1 5 0
Packing in Bags 1/2 size	14·44	Bag		
Packing in Bags 1/1 size	12·38			
Continuous Machine Man	3·20	10 Trays	91	1 8 3
Feeder	2·58	,,		1 3 6
Receiver	2·38	,,		1 2 0
Table Man	2·17	,,		1 0 6
Paraffin Man	0·413		596	1 4 6
Outside Veneer Peeling Machine Man ..	3·87	Layer	89	1 12 9
Assistant	3·10	,,		1 7 0
Boys	2·84	,,		1 5 0
Rims Veneer Peeling Machine Man ..	4·90	,,	62	1 9 6
Assistant	4·13	,,		1 5 3
Boys	3·82	,,		1 3 9
Bottom Veneer Peeling 1/2 Size 1 m/m Machine Man.	9·90	,,	48	2 3 6
Assistant	8·25	,,		1 13 6
Boys	6·19	,,		1 6 0
Bottom Veneer Peeling 1/1 Size 1 m/m Machine Man.	7·74	,,	47	1 14 6
Assistant	6·40	,,		1 9 6
Boys	4·85	,,		1 3 0
Outside Veneer Choping Machine Man ..	0·98	,,	284	1 7 3
Helpers	0·78	,,		1 2 6
Dyeing	0·83	,,	284	1 3 6
Rims Veneer Chopping	3·82	,,	78	1 8 9
Bottom Veneer Chopping	2·32	,,	118	1 6 0
Waste Transport in Peeling Dept.	2·07	Cony. Layer	97	1 0 9
Transport of Billets & Rollers	1·20	,,	162	1 0 0
Inner Box Making H50	12·90	Basket	20·25	1 5 9
O60	7·74	,,	31·5	1 4 6
Outer Box Making H50	6·71	,,	37	1 4 6
O60	4·28	,,	59	1 5 0
Box Drying	11·76	50 Gross	21	1 4 6
Transport in Box Making	11·76	,,	21	1 4 6
Box Closing H50 Machine Man & Receiver	1·09	Tray	210	1 3 3
Inner Box Feeder	0·87	,,		0 15 3
Box Closing O60 Machine Man & Receiver ..	0·98	,,	240	1 3 6
Inner Box Feeder	0·79	,,		0 15 9
Transport in Box Closing	4·85	50 Gross	47·5	1 3 3
Waste Stick Levelling	6·19	Tray	38·5	1 4 0
Box Filling H50 6-cup Machine Man ..	1·16	,,	240	1 7 3
Helpers	0·85	,,	240	1 1 0
Stick Arranger	0·50	,,	480	1 4 0
Box Filling O60 6-cup Machine Man ..	1·37	,,	230	1 10 3
Helper	0·92	,,	230	1 1 6
Stick Arranger	0·65	,,	345	1 2 9
Transport in Box Filling	3·51	50 Gross	63	1 2 6
Transport of Stick trolleys	1·14	,,	190	1 2 0
Banderol Pasting Machine H50	3·00	Basket	77	1 3 3
O60	1·86	,,	123	1 3 0
Banderolling & Labelling Machine O60 ..	1·29	Tray	170	1 2 3

Job.	Piece Rate. Pies.	Unit.	Actual capacity per day.	Actual earning Per day. Rs. a. p.
Banderol Cutting	1·24	50 Gross	190	1 3 6
Banderol Powdering etc.	5·88	,,	37·7	1 2 9
Transport in Banderoling	1·04	50 gross	190	1 0 6
Transport in Banderoling	2·94	,,	190	0 15 6
Box Labelling H 50 Feeder	1·59	Tray	136	1 2 0
Box Labelling H 50 Receiver	1·45	,,		1 0 6
Box Labelling O60 Feeder	1·17	,,	185	1 2 0
Box Labelling O60 Receiver	1·07	,,		1 0 6
Paste Transporter Labelling Dept. ..	0·98	,,	190	0 15 6
Checking of labelled boxes	3 22	10 Trays	47	0 15 3
Frictioning Machine Man	3·92	50 Gross	70	1 6 9
Feeder & Receiver	14·65	,,	210	1 5 3
Transport from checking to frictioning ..	1·14	,,	190	1 2 0
Packing Loose Boxes—				
Single ocean	12·00	,,	28	1 12 0
Double ocean & Single Hessian ..	14·00	,,	25	1 13 0
Cutting, Marking & Transport	7·22	,,	190	1 6 9

APPENDIX III.

List of Commodities supplied to workers by The Western India Match Co., Ltd. Madras.

Articles.	Articles.
Asafoetida	Kambu
Atta flour	Karamani
Bengal Gram Whole	Leaves
Betel Nut	Match Box
Butter	Mustard
Caraway	Oil Cocoanut
Cardamom	Oil Gingelly
Cashew Nuts	Oil Ground Nut
Castor Oil	Oil Lamp
Cheeka	Pepper
Chillies	Poppy Seeds
Cinnamon	Raggee
Cloves	Rice Boiled
Coffee Seeds	Rice Raw
Coriander	Rice Broken R.
Cummin Seeds	Roilong
Dill Seed	Salt
Dholl B. Gram	Scented Oil
Dholl Black Gram	Soap "501" Bar
Dholl Green	Soap Toilet
Dholl Tur	Sugar Java
Eucalyptus oil	Sugar Brown
Flour American	Saffron
Garlic	Tamarind
Ginger Dried	Tea Dust
Jaggery	Wheat
Jaggery Palmyrah	Whole

APPENDIX IV.

Terms of tenancy in the Factory of the Western India Match Co., Ltd. Madras

.....QUARTERS.

The Western India Match Co., Ltd., (hereinafter called the Company) hereby grants to (hereinafter called the Licensee) liberty and license to occupy room No. in Block No. on the terms and conditions following, namely :—

1. The Licensee will pay a licence fee of Rs. monthly in respect of the room occupied by him and such licence fee may be deducted by the Company monthly from the wages, salary, or other monies due by the Company to the Licensee.

2. The Licensee shall not assign, let or part with possession of the said room, or any part thereof, and shall not take in any lodger without the written permission of the Company, and the room shall be used for residential purposes only.

3. The Licensee shall keep the room in a clean and sanitary condition, to the satisfaction of the Company or its Medical Officer.

4. The Licensee shall make good any damage caused to the room while in his occupation, and whether caused by him or any other person residing therein fair wear and tear only excepted.

5. The Company and its Medical Officer and any other duly authorized official of the Company shall be entitled at all times to enter the room occupied by the Licensee for any and every purpose.

6. The Company shall be at liberty to revoke this license at any time without notice and without giving or being liable to give any reason therefore to the Licensee and thereupon the Licensee will forthwith hand over to the Company vacant possession of the room.

7. The Licensee will observe and comply with such other Rules and Regulations relating to the occupancy of the room as may from time to time be made by the Company.

Dated,.....193 .

THE WESTERN INDIA MATCH CO., LTD.
Madras Factory Manager.

(Signature of Licensee)

APPENDIX V.

Statement of comparative maximum and minimum basic wages per fortnight per worker in 1939 *and* 1945 *in the Assam Dhubri Factory.*

Department and occupation.	February 1945.			February 1939.		
	No. of machine men in both shifts.	Maximum wages.	Minimum wages.	No. of machine men in both shifts.	Maximum wages.	Minimum wages.
Log Transport	8	13 0 0	13 0 0	3	12 3 0	12 3 0
Gross Cutting.						
Driver	2	28 3 3	28 3 3	1	15 12 0	15 12 0
Helpers	10	26 9 9	26 9 9	3	14 12 0	14 12 0
Splint Peeling.						
Driver	4	35 9 0	29 9 0	1	19 3 0	16 3 0
Helper	8	27 14 0	22 12 0	2	15 0 0	12 1 0
Splint Chopping .. .. / Split Drying	8	30 7 0	30 7 0	3	16 8 0	12 8 0

Department and occupation.	February 1945. No. of machine men in both shifts.	February 1945. Maximum wages.	February 1945. Minimum wages.	February 1939. No. of machine men in both shifts.	February 1939. Maximum wages.	February 1939. Minimum wages.
Outer Veneer Peeling.						
Driver	2	27 1 0	22 0 0	1	24 6 0	20 6 0
Helper	4	21 11 0	16 12 0	2	19 0 0	15 0 0
Rim & Bottom Veneer Peeling.						
Driver	2	33 5 0	28 2 0	1	20 6 0	16 6 0
Helper	4	30 14 0	25 10 0	2	16 4 0	12 4 0
Outer Veneer.						
Chopping	2	25 3 0	21 2 0	1	21 10 0	17 10 0
Rim & Bottom Chopping	2	36 6 0	31 2 0	1	18 11 0	14 11 0
Splint Levelling	6	20 7 0	16 4 0	2	16 14 0	12 14 0
Frame Filling	40	22 6 0	17 5 0	11	17 0 0	12 0 0
Dipping Paraffining	10	42 0 0	37 2 0	4	17 10 0	12 0 0
Inner Box Making	40	21 7 0	16 4 0	15	16 4 0	12 4 0
Outer Box Making	30	19 8 0	14 5 0	10	15 4 0	12 4 0
Box Closing.						
Driver	26	16 1 0	13 4 0	10	16 12 0	12 12 0
Helper	26	14 6 0	11 8 0	10	15 0 0	11 0 0
Box Arrangers	26	13 0 0	10 0 0	10	12 7 0	10 7 0
Box Filling.						
Driver	30	19 14 0	15 12 0	12	17 10 0	12 10 0
1st Helper	30	13 0 0	10 2 0	12	11 8 0	9 8 0
2nd Helper	30	12 3 0	9 1 0	12	10 13 0	8 13 0
Frame Emptying	12	11 14 0	18 2 0	4	17 2 0	15 2 0
Banderolling.						
Feeder	10	14 7 0	10 4 0	5	15 1 0	10 1 0
Banderoller	40	16 4 0	12 2 0	20	15 14 0	10 14 0
Box Labelling	20	19 0 0	15 1 0	10	17 4 0	12 4 0
Frictioning	6	23 7 0	23 7 0	3	19 8 0	14 8 0
Drying Marking, Packing, Nailing Iron Hooping, Lining Transport of empty cases and packed cases to godown	12	24 6 0	24 6 0	4	10 5 0	10 5 0
24 a. Dozen packing by m/c	..	..	..	2	17 9 0	17 9 0
25 a. Gross packing	..	..	..	2	18 14 0	18 14 0
Case nailing	..	..	..	2	10 13 0	10 13 0
Case Board.						
Transportation of shooks	..	..	..	..	..	..
Rack-saw cross cutting	..	..	..	..	..	..
Split saw & planning m/c	..	..	..	..	..	..
Driver	8	24 7 0	20 7 0	4	15 9 0	10 9 0
Helper	8	20 6 0	16 6 0	4	13 0 0	0 8 0
Transporter	10	23 0 0	18 0 0	5	14 4 0	10 4 0
2nd, 3rd, split Saw m/c Driver	6	24 7 0	20 7 0	2	15 9 0	10 9 0
Helper	6	20 6 0	16 6 0	2	13 0 0	8 0 0
M/c Driver and cutting	4	20 6 0	16 6 0	2	13 0 0	8 0 0
M/c Driver edge cutting	2	23 6 0	18 6 0	1	13 9 0	8 9 0
Helper	2	17 1 0	12 1 0	1	10 13 0	8 13 0
General rate for coolies and transporters Rs. 0-11-0 per day. Fitters and carpenters on daily rates varying from As. 11-0 to Rs. 3-2-0.						

In addition to these there are coolies, transporters, sweepers, etc., numbering 500, who are paid at the rate of -|11|- per day. Godown coolies are paid at As. -|13|- to Rs. 1|2|-. In 1939 also the same rates were paid.

APPENDIX VI (a).

Frequency Table showing Average Daily Basic Wages of workers employed in 17 Match Factories in 8 centres in India covered by the wage Census.

Wage groups.	Bombay.		Calcutta.		Madras.		Ramnad.		Lahore.		Bareilly.		C.P.		Mysore.		All centres.	
	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.
Less than 4 as.	..	..	..	..	..	..	159	29·8	7	1·7	..	..	45	19·2	..	..	182	3·1
4 as. but less than 6 as. ..	18	1·3	113	5·6	..	..	200	27·6	1	0·2	..	..	95	40·4	55	25·5	493	8·3
6 as. but less than 8 as. ..	86	6·1	176	8·8	..	..	157	29·5	19	5·0	2	0·8	42	17·9	75	34·7	552	9·3
8 as. but less than 10 as. ..	58	4·1	309	15	..	..	12	2·3	165	42	66	14·1	24	10·2	38	17·6	689	11·6
10 as. but less than 12 as. ..	15	1·1	274	13·7	6	0·9	2	0·4	79	23	43	9·2	11	4·7	24	11·1	460	7·7
12 as. but less than 14 as. ..	338	23·9	162	8·7	70	10	1	0·2	56	14·5	51	11·8	8	3·4	9	4·1	694	11·7
14 as. but less than Re. 1 ..	174	12·3	59	2·9	62	9	1	0·2	11	3·0	200	42·6	1	0·4	6	2·8	513	8·6
1 Re. but less than Rs. 1/2	110	7·8	81	4·0	178	25·4	..	..	20	5·0	32	6·7	5	2·1	2	0·9	428	7·2
1/2 Rs. but less than Rs. 1/4	171	12·1	63	3·1	219	31·4	..	..	..	..	69	14·5	2	0·9	1	0·5	527	8·8
1/4 Rs. but less than Rs. 1/8	331	23·3	474	23·6	102	15·1	..	..	6	1·7	4	0·8	1	0·4	5	2·3	923	15·5
1/8 Rs. but less than Rs. 1/12	70	4·9	179	8·9	38	5·4	..	..	5	1·5	1	0·2	..	..	..	..	293	4·9
1/12 Rs. but less than Rs. 2	5	0·4	97	4·8	12	1·5	..	..	1	0·2	..	..	..	..	..	..	115	1·9
Over Rupees 2	38	2·7	19	0·9	10	1·3	..	..	15	2·2	..	..	1	0·4	1	0·5	84	1·4
Total ..	1,414	100	2,006	100	697	100	532	100	385	100	468	100	235	100	216	100	5,953	100

APPENDIX VI (b)

Frequency Table showing Average Daily Net Earnings earned by workers employed in 20 Match Factories in 8 centres in India covered by the Wage Census.

Earnings groups.	Bombay		Calcutta.		Madras		Ramnad.		Lahore.		Bareilly.		C.P.		Mysore.		All centres.	
	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.	No. of workers.	Percentage.
Under 8 as. ..	18	1·3	111	5·5	..	..	467	87·78	10	2·7	..	..	183	77·8	8	3·7	798	13·4
8as. but less than 12 as. ..	129	9·1	140	7·0	..	..	47	8·83	20	5·0	..	..	34	14·5	171	79·2	537	9·0
12 as. but less than 1 Re. ..	59	4·2	639	31·9	10	1·3	16	3·01	16	4·0	2	0·8	8	3·5	18	8·3	771	12·9
1 Re. but less than 1/4 Rs.	64	4·5	127	6·3	206	30·0	..	..	95	27·3	59	12·3	7	3·0	10	4·6	568	9·6
1/4 Rs. but less than 1/8 Rs.	12	0·9	170	8·5	203	30·0	2	0·38	63	16·0	89	19·2	1	0·4	3	1·4	543	9·1
1/8 Rs. but less than 1/12 Rs.	16	1·1	219	10·9	207	30·1	..	..	85	20·3	226	48·2	1	0·4	2	0·9	756	12·7
1/12 Rs. but less than 2 Rs.	287	20·3	343	17·1	26	3·0	..	..	24	6·0	87	18·5	..	..	..	..	767	12·9
2 Rs. but less than 2/4 Rs. ..	193	13·6	137	6·8	5	0·6	..	..	22	5·6	4	0·8	..	..	3	1·4	364	6·1
2/4 Rs. but less than 2/8 Rs.	250	17·7	105	5·2	15	2·0	..	..	30	8·1	1	0·2	1	0·4	1	0·5	403	6·8
Over Rupees 2/8	386	27·3	15	0·8	25	3·0	..	..	20	5·0	..	..	..	..	..	..	446	7·5
Total ..	1,414	100	2,006	100	697	100	532	100	385	100	468	100	235	100	216	100	5,953	100

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

LABOUR CONDITIONS IN THE MICA MINING AND MICA MANUFACTURING INDUSTRY

Cx.h.52

BY

B. P. ADARKAR

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L-4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making. (29) Mica Splitting. (30) Sugar. (31) Cotton, Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst employers' and workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North Western Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint a Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) that the Committee, as a whole, to study each industry, (ii) that the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) that each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

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PART I.

CHAPTER I.—INTRODUCTION.

Economic Background.

Mica is of vital importance to the world's electrical industry, and, as the greater part of the world's requirements of mica are produced in India, the industry is of very great importance to this country. In recent years a considerable amount of attention has been drawn to certain undesirable features of the industry and in 1944 the Government of India set up the Mica Enquiry Committee for the following reasons :—

" (*i*) Recent events have shown that the present organisation of mica industry and trade is extremely unsatisfactory and tends to encourage methods and practices that are detrimental to the healthy development of the industry ;

" (*ii*) The present mining practices are generally so wasteful and primitive that by an enquiry a competent Committee into the best means of conserving this important mineral asset of the country seems essentially necessary at this stage ;

" (*iii*) The present methods of marketing leave a good deal to be desired, and standardisation of quality will become increasingly urgent in post-war years. It is considered necessary to obtain authoritative advice on these questions so that the industry may be properly organised to face the problems that will arise after the war ; and

" (*iv*) The mica industry in this country will, in all probability, have to face increasing competition from abroad soon after the cessation of hostilities. Such competition may arise from alternative sources of supply as well as from possible substitutes, which recent technological advances may eventually produce. It is necessary that these problems of the future should be studied in advance by a competent authority."

The Committee have been given very wide terms of reference for their enquiry and presumably their recommendations will cover every aspect of the industry. The conditions under which labour is employed in the mining and treatment of mica have not been specifically included in the Committee's terms of reference ; hence this report may perhaps fill the gap.

The various economic aspects of mica have, as their background, the fact that this mineral is indispensable to the world's electrical industry. Although, for certain purposes, substitutes are available, there are other purposes for which no substitutes have yet been found which possess all the properties required for those particular purposes. So vital is it to electrical technology that it is difficult to visualise what form electrical prime movers would have assumed in the absence of mica ; certainly dynamos and electrical motors as we know them to-day would not have been in existence.

Before the war, India produced approximately 70—75 per cent. of the world's output of mica of which about 55 per cent. was obtained from Bihar. So far as the better quality of mica is concerned, perhaps 80 per cent. of the world's requirements has emanated from Bihar. The production has progressively increased from 32,488 cwts. in 1921 to 135,545 cwts. in 1939, of which Bihar's share was 26,058 cwts. in 1921 and 85,662 cwts. in 1939. During the war the production further increased to 180,336 cwts. in 1943, of which Bihar produced 103,468 cwts.

During the war the Indian mica industry has been the main source of supply to Allied countries, but production from Brazil has increased very considerably indeed, particularly in the better qualities.

It is possible that, during the war, certain substitutes may have been found for some of the purposes for which mica was formerly indispensable.

Such substitutes, and possible competition with mica from Brazil and perhaps other countries, may have some effect on the Indian industry but it is difficult at this stage to anticipate what that effect will be after the war when open marketing becomes again possible. So far as we can judge, at present, there should still be a considerable demand for Indian mica.

Amongst the advantages which the Bihar mica industry has held is that not only does the Province possess within a limited area deposits containing a high quality mica, but also there is a very considerable local reservoir of labour, highly skilled in cutting, sorting and splitting mica.

Some idea of the size of the Indian industry may be obtained from the fact that the pre-war annual value of the exports was approximately Rs. 1 crore ; the annual value during the last few years has been of the order of about Rs. 2-1|2 to 3 crores. Obviously, from these figures, the total profits made within the industry are not as vast as may have been suggested by many, although the profits made by a few firms in terms of the capital invested may have been quite considerable. In terms of the total labour employed, which has been estimated from 1 to 2-1|2 lakhs of people, the profits can only be regarded as very small indeed. It is difficult to judge to what extent part of these profits could be diverted towards amenities for the workers, such as improving residential quarters, adequate medical provision at the mines, etc. This will depend on increased efficiency, increased production, and increased prices for mica in the near future—certainly, the electrical industry could well afford to pay a higher price for good quality mica than it has paid in the past. On the one hand, the mine owner contends that without increased efficiency by the mine worker he cannot afford to pay higher wages and provide other amenities, and on the other, it may be contended that increased wages, and better amenities will eventually result in the establishment of a stable labour force with increased efficiency and the removal of such evils as absenteeism.

Location of the Industry.

Occurrence.—The principal form of mica is known as Muscovite of which there are two main varieties : *Ruby mica,* found principally in Bihar and Rajputana, and *Green mica* found principally in Madras. Another variety of mica, phlogopite, is produced mainly in Canada, but deposits are known in Travancore, and in Madugula Estate, Madras.

Muscovite occurs generally very sparingly in a rock known as pegmatite, which forms small veins, lenses or irregular masses in schists. Because of the small size and irregular nature of the pegmatites, and of the spare and irregular occurrence of the mica within them, mica mining is a somewhat hazardous undertaking as compared with certain other minerals. However, provided a mica miner has a sufficient number of mines in every stage of development and production, the hazards of mining of the particular miner can be reduced to a minimum.

The main mica belt of Bihar is included in an area 90 miles long and about 20 miles wide, extending from Gaya district on the west to Bhagalpur district on the east. Most of the belt is included within Hazaribagh district, and the most important production comes from a small area 56.93 square miles within the Kodarma Reserve Forest. Other centres of activity in the Bihar Belt are Dhorakhola, Masnodih, Dhab, Gawan and Tisri.

In Madras, the mica belt covers about 500 square miles on the coastal plains, within Nellore district. The main mica centres are Gudur, Rapur, Podalakur, and Kaveli. Some mica deposits have been found in Coimbatore and Salem districts. The Green mica of Madras is not of such great commercial importance as the Ruby mica of Bihar.

In Rajputana, mica is found in Ajmer-Merwara and in several of the States, mainly Mewar, Tonk, Jaipur and Shahpura. The production from Rajputana has increased considerably since about 1936.

Very small amounts of mica have been obtained in Travancore and other parts of India, such as Nilgiri in Madras, Sambalpur district in Orissa, various States of the Eastern States Agency, and Hazara district in the N.W.F.P.

Owing to the scarcity of roads in the main mica areas, transport has always been difficult and many of the mines are, from the point of view of labour and supplies, relatively inaccessible.

Mines.—In Bihar the Kodarma Reserve Forest is divided into about 900 squares of 40 acres each. These squares are leased to the miners on an annual rental which is now Rs. 12 per acre, for a period up to 30 years. Outside of the Kodarma Reserve Forest most of the mica occurs in *zamindary* land for which lease terms vary widely. Proprietors in some cases work the deposits themselves under a Proprietor's certificate. There are about 200 holders of Miners' licences in the Bihar Mica Belt, and there are approximately 650 mines notified under the Indian Mines Act. There are many other surface workings, usually known as ' uparchala ' workings.

In Madras the lease terms vary, but the Madras Government charges a royalty on the cut mica despatched from the mines. There are approximately 200 mines in the Madras area.

In Rajputana the lease terms vary according to the area. Most of the leases are for short periods of perhaps only 3 years and for the most part royalty is charged on production. It is estimated that there are about 400 mica mines in the Rajputana area, but a great majority of these are open pits.

Factories.—The centres for cutting, sorting and splitting Bihar mica are Kodarma, Jhumri-Telaiya, Domchanch, and Giridih. The entire output of Rajputana mica is also despatched to Bihar for final treatment. It is estimated that there are about 140 establishments in Bihar and 3 of these employ over 1,500 persons each.

In Madras the main mica centres are at Gudur and Chennur where there are about 50 factories. In recent years a number of factories have been started in Rajputana for cutting and sorting mica. In Mewar there are factories at Bhilwara and Kankrauli each employing about 200 workers.

In addition to the treatment of mica within the factories, there is a large cottage industry in the conversion of mica into splittings. The amount of labour engaged as " home splitters " far exceeds that working in the factory. It has been estimated that the factory labour is of the order of about half-a-lakh of people, whereas the number of home splitters engaged has been estimated to exceed a lakh.

Structure of the Industry.

Briefly, the industry may be divided into three parts (*i*) Mining, (*ii*) Manufacturing, and (*iii*) Trading.

Mining.—In the early days of mica mining, the industry was in the hands of a few firms who were exporters as well as miners. In the early days mining was primitive and mostly confined to the surface, and only the better quality and larger sizes of mica were exported. Gradually an increasing number of firms entered the industry. Firms with non-Indian capital gradually dropped out, and to-day the only firm with non-Indian registration is Chrestien Mining Co., which is also the oldest company in the industry.

For the most part the various firms undertake their own mining, but many let the *uparchalla* work to contractors. To some extent, perhaps, these *uparchalla* contractor have performed a useful service to mica mining as they have

been largely responsible for prospecting and opening mica mines. Generally, however, when a deposit worked by a contractor shows evidence of continuity in depth, it is taken over by the particular mining firm.

A number of the deeper mines are now mechanised, and this mechanization is extending rapidly. For the most part of mechanization consists of the installation of boilers, compressors, machine pumps, mechanical drills and hoists. In general, the conditions of labour are better in the mines owned by the larger and long established firms, because the hazards of mining for such firms are spread over many deposits ; they are able to employ a more stable labour force and are in a position to arrange regular working hours and regular payments. Such larger firms are responsible for about 80 per cent. of the production, and number perhaps only about a dozen. The remaining 20 per cent. of the production is distributed amongst more than 200 holders of miners' licences and proprietors' certificates.

Manufacturing and Trading.—Some of the larger firms are concerned not only with mining and prospecting but also with the final export of mica. Other miners sell their output in the local market at some stage in processing. Others who are exclusively dealers merely purchase mica in the local market for further processing, and sell either to larger dealers or for direct export. Before the war, several of the larger firms, such as Chatturam Horilram Ltd. F. F. Chrestien and Co., and the Indian Mica Supply Co., had their own selling agencies abroad. Other companies sold their mica to brokers in London or New York. These brokers performed quite a useful function for the small exporters ; for they were able to hold stocks for distribution to the market as necessary. Most of the mica shipped abroad was further processed on its arrival in the country of destination for utilisation in the manufacture of electrical equipment.

In 1940 the Geological Survey of India purchased mica for the American stockpile and later for the Metals Reserve Corporation on behalf of the American Government. In 1942 the Joint Mica Mission, representative of the U.K. and U.S.A. Governments, was formed to buy all mica destined for export from India, on behalf of the Allied countries. At the conclusion of the war and the withdrawal of the Joint Mica Mission from the industry, presumably, the export trade will return to the various dealers.

The following was the position of the various licences issued in Bihar in June 1944 :—

1. (a) Proprietors' Certificates	54
(b) Miners' Licences	199
(c) Dealers' Licences	580
2. (a) Proprietors' Authorised Agents	234
(b) Miners' Authorised Agents	1,201
(c) Dealers' Authorised Agents	1,752
3. (a) Proprietors' Registered Godowns	224
(b) Miners' Registered Godowns	824
(c) Dealers' Registered Godowns	2,027

PART II.

CHAPTER II.—SURVEY OF LABOUR CONDITIONS—General.

In this Chapter, it would be convenient to deal with some of the topics of a general interest, which are of common importance to all the regions of the industry. In the following Chapters, it would be possible to present data relating to the various regions in such a way as to avoid repetition as far as

possible. The main topics of general interest are the peculiar legal and constitutional position of the mica industry in relation to labour ; the methods of production in mining and manufacture and the types of workers engaged in each one of them ; the probable total employment in the mining and manufacturing industries ; the special problem of employment of women and children underground in mines in contravention of the Indian Mines Act and of employment of children in factories in contravention of the Employment of Children (Amendment) Act, 1939 ; the nature of accidents ; and occupational and other diseases.

The Legal and Constitutional Position.

The legal and constitutional position regarding labour in mica mines, as in other mines, appears to be somewhat confused. Apparently under the Indian Mines Act, the Chief Inspector of Mines, under the Government of India, is responsible for labour conditions, particularly those covered by Chapters V and VI of the Indian Mines Act. However, the Indian Mines Act is extremely inadequate in respect of provisions relating to labour. The Payment of Wages Act is applicable to the mines only by a special notification to the effect. So far, however, no such notification has been issued and consequently in regard to payment of wages grave abuses still prevail. The Workmen's Compensation Act is, of course, applicable, but here the position is that while the Chief Inspector of Mines and his officers are required to investigate the cause of an accident, adjudication for compensation is entrusted to the Provincial Government's Commissioner for Workmen's Compensation. It must be noted, moreover, that the Workmen's Compensation Act according to Schedule II (v) does not apply to "any excavation in which on no day of the preceding twelve months more than fifty persons have been employed or explosives have been used and whose depth from its highest to its lowest point does not exceed twenty feet...." This means that a large number of *uparchalla* workings are outside the scope of the Act. From information available in the Reports of the Chief Inspector of Mines, it appears that incidence of accidents in *uparchalla* working is quite considerable. The Mines Maternity Benefit Act, 1941, applies to mica mines but in actuality the operation of the Act appears to be infructuous. The Provincial Governments have no doubt created a few Mines Boards of Health, which are also entrusted with the initiation of labour welfare measures in the coal mining industry, but, although the need for such Boards is much greater in the micafields which lie mostly in forests infested by malaria, hookworm, ankylostomiasis and other diseases, no such Boards for the industry have yet been thought of by either the Central or Provincial Governments. Thus it is obvious that the question of labour in mica mines, on the administrative side, has been allowed to remain hopelessly muddled and complicated by divided responsibility, on the one hand, and inadequate enforcement on the other.

As regards the factories, there is no law applying anywhere except the Employment of Children (Amendment) Act, 1939. Nowhere is any factory declared under section 5 (i) of the Factories Act as amended in 1941, although this could have been done long ago by the Provincial Governments themselves. Consequently, there is no regulation of labour conditions of any kind, whether as regards payment of wages, or hours of work, or working conditions. Even the Employment of Children Act, which ostensibly applies, is, as we shall see later, almost a dead letter.

Working of the Various Acts.

Indian Mines Act.—Mica mines, as stated above, are subject to the provisions of the Indian Mines Act, 1923, and rules made thereunder. Section 3(f) of the Act defines a "mine" thus :

"Mine means any excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on, and includes all works, machinery, tramways and sidings, whether above or below ground, in or adjacent to or belonging to a mine. Provided that it shall not include any part of such premises on which a manufacturing process is being carried on, unless such process is a process for coke-making or the dressing of minerals."

A strict interpretation of the above sub-section would have brought *uparchalla* workings within the scope of the Mines Act, because *uparchalla* pits are obviously "Excavations" in which there is an operation "for the purpose of searching for.....minerals." The Chief Inspector of Mines, however, informs us that "in accordance with Notification No. M-1051, dated the 1st October 1935, mines or part of mines in which excavation is being carried out for prospecting purposes only and not for the purpose of obtaining minerals for use or sale, are exempt from the provisions of the Indian Mines Act, provided that, (i) not more than twenty persons are employed in or about such excavation; (ii) no part of the excavation extends beneath the super-adjacent grounds; and (iii) the depth of the excavation measured from its highest to its lowest point nowhere exceeds 20 feet, or, in the case of an excavation for coal, 50 feet." *Uparchalla* workings, which are according to some estimates responsible for the production of one quarter of the total output, are thus, subject to no rules and regulations whatsoever. Since most of the *uparchalla* work is done through contractors, one can well imagine the conditions of labour prevalent in this section of the industry. Numerous complaints were made to us against these contractors. It is clear they always go scot-free because no law governs their operations.

Another point to be noted in this connection is that evasion of the Indian Mines Act itself becomes easy in the circumstances. There is a fairly wide twilight zone between a mine proper and an *uparchalla* working. A large number of the so-called *uparchalla* workings would have been declared mines if their depths or employment figures were ever properly checked. But the present inspectorate is too inadequate to make such investigations and the inaccessibility of the mines makes surprise visits impossible. We saw an excavation for prospecting purposes which was more than 50 feet in depth and yet it had not been declared a mine.

Section 17 of the Act provides: "There shall be provided and maintained for every mine latrine and urinal accommodation of such kind and on such scale, and such supply of water fit for drinking, as may be prescribed." Our survey revealed that latrine and urinal accommodation had not been provided *anywhere*. Even the biggest of the mines employing 1000 workers had not made any such arrangement.

Section 18 requires the mine-owners to furnish their mines with some medical equipment. Except in the bigger mines, not even first-aid boxes are kept. There may of course be the pretence of a box but generally it is empty.

Under *Section* 28, of the Indian Mines Act, the owners are required to maintain a proper attendance register, showing therein in respect of each employee—

(a) the nature of his employment,

(b) the periods of work fixed for him,

(c) the intervals for the rest, if any to which he is entitled,

(d) the days of rest to which he is entitled, and

(e) where work is carried on by a system of relays, the relay to which he belongs.

Proper attendance registers are maintained only in a few mines. Elsewhere, either no registers are maintained but attendance is recorded in loose sheets, or if registers are maintained, attendance is not shown properly. Invariably there are two sets of books : (a) the *Bahi* or the original account book of the owner, and (b) Registers, meant to be shown to the Inspector, if by an ill-chance he happens to visit the mine. In one case we found that in the attendance register no entries had been made for the previous fortnight, although the mine had been working regularly. It was stated that attendance had been recorded in the *bahi* and that it would be copied out later.

Employment of Women and Children in Mines.

In contravention of the provisions of the Indian Mines Act, both women and children appear to be employed underground in mines quite openly in all the three mica areas. Women are employed for the removal of muck and earth from the pit to the mouth. Children are also employed underground for minor jobs. The Indian Mines Act prohibits the employment of "children" below 15 years of age in any part of the mine. It further provides that "young persons" between 15 and 17 years of age can only be employed if a qualified medical practitioner certifies that they are fit enough to undertake the strenuous duties of a miner. Both the sections of the Act are infringed. The fact that women and children can also be employed on the surface of mines, probably, facilitates the subterfuge. The violation of the Mines Act is also assisted by the anxiety of women in the mining area to earn additional incomes for their families, as the wages earned by the men folk are not sufficient for subsistence. Employers, on the other hand, are in a position to exploit cheap labour. In the absence of subsidiary employment in the mining area for the women, it is difficult to stop them from going underground. Workers collude with the employers, in the employ of children and women, due to their basically low wages Unless the men's wages are raised to a sufficiently high level, no real remedy of the evil can be found. Moreover, these days mica mines are experiencing shortage of labour and so women and children are being employed underground. In the case of Bihar, this shortage of labour is due to a number of factories, the chief among them being the proximity of coal mines where better wages, working conditions, housing accommodation, grain concessions, etc., are available. A substantial part of the aboriginal population has also migrated to Assam where plenty of employment is available.

Workmen's Compensation Act.

Labour in mica mines is hardly aware of the existence of this Act. Only perhaps skilled workers like shotfirer or machine-drillers are aware of their rights under the Act. At some of the mines, posters giving extracts from the Act are displayed prominently but this method of acquainting the workers with the provisions of the Act is futile as nearly all of them are illiterate. The workers and their representatives stated that a large number of accidents which occurred in the mines went unreported. Most of the mines are inaccessible and this malpractice, therefore, continues unabated. What happens in most of the cases is that the victim is paid a little money and is asked to stay away from the mine till he has recovered completely. The worker suffers from a large number of disadvantages. Firstly, he cannot safely take up cudgels against the employer, for if he succeeds in his petition he may get the compensation but lose the job ; but if by ill-chance he fails, he will get into debt and lose the job also. Secondly, workers live in villages situated in the midst of jungles and, therefore, even if they have a little inclination to go to town for litigation, the ardour is damped by transport difficulties. There is no labour union in the entire mining area and as such concerted action cannot be taken. Finally, there are no

agencies to render legal assistance to workers in securing compensation. It may be noted here that no mining firm insures its employees against accidents. Messrs. Chatturam Horilram, Ltd., in Bihar, used to insure their workers previously, but now they have discontinued the practice. The General Manager stated that accidents in mica mines were few and far between and so it was "cheaper" to pay compensation directly to the worker than to pay insurance premia.

Employment of Children in Mica Factories.

In 1938, the Central Legislature passed the Employment of Children Act prohibiting the employment of children below 15 years of age in certain specified occupations; but mica manufacture was not one of those occupations which were specified. The Act was amended in 1939 and the employment of any child who had not completed his twelfth year was prohibited in any workshop connected with, *inter alia*, mica cutting and splitting. By a proviso, however, operations carried on in a house by the occupier with the aid of his family only and without employing any hired labour were exempted from the provisions of the Amending Act The Act, therefore, does not apply to *domestic* manufacture of mica splittings. In spite of the Act, however, the employment of children between 6 and 12 years of age in fairly large numbers is prevalent on an amazingly wide scale in open defiance of law and the employers make no secret of it. Surprising though it may seem, child labour was found even at the Government Factory at Pachamba in Bihar. The practice was actually wide-spread in Rajputana and Madras.

Three main arguments are put forward by the employers justifying the employment of children below 12 years of age: (i) that since children cannot be provided with education it is better to make them learn the trade rather than let them waste their time; (ii) that only by starting early can they become experts in the trade later on; and (iii) that their earnings supplement the meagre earnings of the family. None of the above arguments, however, makes out a case for employing children for long hours of work. Mica factories work from 10 A.M. to 6 P.M. A large number of workers come from places 5 to 6 miles away from the factories. It is clear that they have to be away from their homes for at least 10 hours every day. To pick up skill early, it is not necessary that a child should start working inside a factory at the age of 6. It is quite possible to acquire the skill and supplement family income by working at home on a part-time basis. If arrangements for primary education are made and the Employment of Children (Amendment) Act is vigorously enforced, the child labour will be driven to the domestic section where hours of work will not be so long and irksome. The real reason for employing children in the mica processing industry is that such labour is cheap and can be easily exploited. Inferior quality mica can be easily and safely handled by children and the savings thereby made in labour costs more than balance the damage done to mica pieces by a little less careful manipulation by them. This can be proved by reference to the comparative wage data for child labour and adult labour for similar occupations (given later).

Inadequate Inspection.

Mica factories are not covered by the Factories Act and naturally enough, this industry not being one of the main jobs of the factory inspectorate of the Provinces, is liable to be neglected. The only purpose for which mica factories have to be visited is the enforcement of the Employment of Children Act, which is after all only a minor item in factory inspection. The factory inspectorate of the Province of Bihar at present consists of one Chief Inspector and two Inspectors, who have to visit hundreds of regulated factories every year throughout the Province. It is understood, however, that the Chief Inspector of Factories has devoted attention to the

matter and has complained to the Provincial Government about the non-observance of the Employment of Children Act. Enforcement of the law by itself would not, however, be enough. It would be necessary to undertake subsidiary measures such as free and compulsory primary education, control of vice, medical aid and the encouragement of the domestic trade. In particular, it would be extremely advantageous to labour as well as to industry if a few schools are established in this area to give general education and also training in mica processing to the young children. Such technical training can be easily given side by side with primary education.

Categories of Occupations in which Children are employed.

As far as factories are concerned, children are employed in most of the occupations. As will be seen later, crude mica obtained from the mines is sorted at the pit-head into two-qualities, *viz.*, (i) *Bara Mal* or bigger pieces, and (ii) *Chhota Mal* or smaller pieces. *Chhota Mal* is processed almost entirely by children. A description of the processes in which children are employed and the proportion of children to adults in such categories of occupation is given below.

(a) *Opening.*—Crude mica is first opened with the help of a double-edged knife and mica pieces known as "Mica Books" are reduced to the required thickness. If opening is done with care and skill, bigger size mica is obtained in greater proportion. It is for this reason that very few children are employed as openers.

(b) *Sickle-Dressing.*—Opened Books are given to cutters for being dressed with sickles. The cutters eliminate cracked or faulty parts of the Book and make the edges slanting rather than perpendicular to the surface of the book. Slanting edges help greatly in the splitting processes. In this occupation a large number of children are employed. It was found that 20 per cent. of the total number of workers employed in this occupation are below 12 years of age.

(c) *Sorting.*—This is rather a general name and there are two distinct sub-processes in sorting. Sickle-Dressed Block (S.D.B.) mica is first sorted according to size. The size of a piece is determined by the area of the largest rectangle that can be cut out of it. Beginners in the trade are provided with tin or card-board rectangles and the size is found out with the aid of these. S.D.B. mica of each size is next sorted according to quality. This is a difficult process. One must possess sufficient experience and skill to distinguish one quality from another, especially the adjacent qualities. In the same process some of the flaws are removed and by eliminating flaws with care and skill the quality of a piece may be improved considerably. As has been said already, children are employed mostly for sorting smaller size mica, and the ratio of children to adults in this occupation is 1 : 5 (approximately).

(d) *Splitting.*—Only smaller size mica (No. 5 and below) is split for making what are known as "splittings". Splitting is done mostly in homes on piece-rate basis. In factories also it is done usually on piece-rate basis and only women and children are employed for the purpose. About 25 per cent. of the total employment in this occupation consists of children below 12 years of age.

(e) *Screening.*—Loose splittings are sieved in order to remove very small pieces. In this occupation the proportion of children to adults is the highest and about 50 per cent. of the workers are children below 12 years.

(f) *Wrapper-making, Condenser Films-making and Book-form Splitting.*—Only 5 per cent. of the total employment in this occupation may be child labour. The work requires great skill and cannot easily be entrusted to children.

Total number of children employed in mica manufacturing.

Proceeding on the random sampling method, in the case of Bihar alone, it was found that out of 9,635 workers employed in the sampled units, 1,416

were below 12 years of age, showing 14.74 per cent. of the total number of mica factory workers is child labour. In October, 1944, total employment in the Bihar mica factories was estimated at slightly over 20,000 but in December 1944, it went down to about 15,000. Our investigations were conducted in the month of December 1944, and the total number of workers employed in mica factories may, therefore, be calculated on the basis of the percentage figures obtained above.

$$\left\{\frac{15{,}000 \times 14{\cdot}74}{100}\right\} = 2{,}205$$

Thus, number of children employed in mica factories .. .. =		2,205
and number of children employed in mica mines .. .. =		1,250
		(5% of 25,000)
Total number of children employed in mica industry		3,455

(In addition to these, there may be 4,000 to 5,000 children working at home). This is the position in Bihar. Adding another 5,000 children employed in Madras and Rajputana, the total for India as a whole would be more than 13,000.

TABLE 1.

Children's Wages.

Occupation.	Men.	Women.	Children.	Relation of children's wages to adult's wages.
Cutters	0 9 0	..	0 3 0 to 0 5 0	33-1/3 to 55%
Sorters .. .. .. (1)	0 14 0	..	..	
Sorters .. .. .. (2)	0 7 0 to 0 9 0	..	0 2 6 to 0 5 0	33-1/3 to 55%
Splitters	0 9 0	0 8 0	0 3 6 to 0 5 6	38·5 to 60%
Condenser & Wrapper makers ..	0 12 0	0 8 6	0 7 6	63%
Book-Form Splitters	0 10 0	0 8 6	0 5 6	55%
Screeners	..	0 6 0	0 3 0 to 0 4 0	50 to 66-2/3% of women's wages.
Packers	0 8 0	..	0 4 0 to 0 5 0	50 to 62% of men's wages.

The above table summarises the position regarding the wages of men, women and children for the same occupations, when they are employed on a time-rate basis. Piece-rates are exactly the same for men, women and children for the same occupations. But this is, of course, not the case with actual earnings. Piece-rates depend upon the quality of material handled rather than on the age or the sex of the worker. Better quality mica, however, is always given to adults so that the actual earnings of children are much lower than those of adults. An analysis of the above table shows that children get 33-1|3 to 66-2|3 per cent. of men's wages for similar occupations. Child labour has increasingly displaced adults in some of the occupations, particularly dressing and sorting of inferior quality mica.

Mica Piracy.

Mica piracy is an extremely controversial topic and forms part of the terms of reference of Mica Enquiry Committee. We shall not, therefore, discuss this question except briefly from the standpoint of labour. From our discussions with mine-owners and others as also from written memoranda,

we gather that the existence of mica piracy is not denied by anyone, although its extent is hotly debated. Superior quality mica possesses great value in small bulk as compared with many other minerals. In the early days of mica mining, miners had no knowledge of the worth of the mineral, and, therefore, there were no cases of mica theft. In the course of time, they learnt not only of the value of mica books but also of the possibility of supplementing their meagre earnings as honest miners. The only problem for them was to find market for stolen mica and this was readily solved by dishonest mine-owners, *uparchalla*-contractors and dealers, who were only too willing to help the distressed miners by purchasing illicit mica, of course, at dust price. Trade in stolen mica has, since then, continuously increased, so much so that "mica piracy" has become a special problem of the industry, defying all attempts at the eradication of the evil. The Government of Bihar appointed a special officer to investigate into the conditions of the industry, and, it is stated, the report of the officer revealed the existence of over 1,000 dealers engaged in the trade, whose activities were suspicious. The result was the enactment of "The Bihar and Orissa Mica Act" in 1930, which obliged miners and dealers to maintain proper records of their transactions and to cover mica loads in transit by passes in prescribed form. The Act failed to achieve its end because manipulation of records and issue of passes by dishonest miners to cover illicit mica loads could not be stopped. The Provincial Government repealed the Act in 1938, but the Government of India promulgated the Mica Control Order in 1940 along the lines of the Mica Act. A special mica police force was also instituted to patrol the area. Its numbers were, however, too inadequate for the huge task set for it, but it did help in some measures to bring about a number of convictions.

The channels of trade in stolen mica have become well established by now. The first stage is stealing of mica books and their transport to safe vaults inside the thicket. It is here that the worker plays his part. During night shifts, miners, in collusion with *durbans*, and, often, with the active connivance of *babus* smuggle out high-value mica books and make for the agreed spot inside the forest. Besides stealing, armed robbery of temporarily closed mines is also fairly common. Usually when a mine is closed for a short period, a couple of *durbans* and one or two *babus* are left in charge. Gangsters are always on the lookout for such opportunities and raid the mines at night. After a brief scuffle, if any, *durbans* and *babus* are over-powered and gagged. For the whole night then, pillars are dug and valuable mica books removed. One such case occurred recently. A gang leader had learnt the art of producing artificially the roar of a lion! He used to approach small mines at night, scare away the few men on guard there, break open stores and get away with considerable booty. After some time all his men were arrested and later convicted for robbery.

Contractors in the micafields are, however, responsible for a large part of trade in illicit mica. The bigger firms employ contractors for prospecting, and the terms of the contract oblige the contractor to sell all mica obtained in the course of *uparchalla* work to the employers at rates laid down in the deed of contract. These rates are, however, always considerably below the market rates with the result that the contractor does not declare all his produce to his employer and sells the better part of his day's bag to others who are prepared to pay better prices. Possibly they serve as receivers of stolen mica also. A large number of contractors who operate in the Kodarma Reserve Forest are, however, in fact sub-lessees of the holders of mining licences, though their *de jure* status is only that of an *uparchalla* contractor. It may be noted that under the terms of the lease sub-letting is illegal. While some of these contractors may be engaged in honest mica mining, others just make the pretence of mining by digging a few pits here and there while their main task, it is

stated, is to collect stolen mica and to declare it as their own produce. Requisite entries in the registers are immediately made and a pass issued to cover their transit to the town.

The main interest in this problem from the stand-point of the present enquiry lies in the direct casual relation between two of the main problems of the industry, *viz.*, the miserably low wage level and mica piracy. The *Eastern Economist* (May 12, 1944) points out : " It is a highly significant fact, that mica thefts have increased with the rising cost of living and lagging wages during the war years. When we remember that most cases of mica theft brought for trial and convicted consist of petty cases in themselves and that the usual picture of a mica pirate is a single employee, not working in concert with others, making away with a headload of his master's property in the forest racks with the purpose of feeding and clothing himself and his family, we can realize the urgency and justice of higher wages in the industry. The need for removing the conditions under which the morally weak are tempted to thieve, is thus not simply a matter of doing away with the receivers of stolen property and providing for adequate policing but also that of improving the wages and conditions to a level consistent with the responsibility expected from the workers." That there is a direct relationship between low wages and piracy is not open to much doubt. Not only the miners themselves, but even the managers (*babus*) in charge of individual mines and *uparchallas* are paid so low wages (sometimes Rs. 25 or 30 per month and seldom more than Rs. 45) that there is every incentive to steal. It has been generally admitted that managers of one mine-owner would be in league with another mine-owner, and thus enable the mine-owners to live on each other's takings.

Thus obviously one of the surest remedies for mica piracy would be to raise the general level of wages in the micafields so as to leave less incentive to one of the principal instruments of piracy, *viz.*, the minor, to steal. Apart from this, better policing, both by Government and by mine-owners, more strict supervision over mine managers, restriction of the number of dealers, and, finally, centralisation of the entire marketing of mica through a single selling organisation, are some of the valuable suggestions made to us and which fall outside our scope. They will no doubt be considered in appropriate detail by the Mica Enquiry Committee.

Methods of Mining and Types of Workers.

Although mica mining was started in India as far back as 1870, mining methods continued to be primitive till about 1918, when a few mines were mechanised as an experimental measure by the bigger firms engaged in the business. For about half a century, therefore, the virgin micafields were exploited by a few pioneering firms with the aid of local-labour and implements like *kodali*, spade and pick-axe. Most of the mica was obtained from open workings and shallow mines, and because the entire fields lay open for exploitation, the early miners followed the " extensive " rather than " intensive " method of mining. " Many of the mines were open cuts, others were little better than rabbit warrens, tortuous holes and tunnels which followed the mica from book to book. Machinery was rarely used and when the amount of water which entered the mine became too great to deal with by bailing, the mine was abandoned."[1] Nor did the search for superior quality mica oblige the miners to go deep : big books of ruby mica lay under a superficial covering of rocky or soft terrain and mere scratching was enough to unearth them. Moreover, the existence of clear surface indications made the task of the prospector easy. The mechanising experiment commenced in 1918, proved a great success leading to reduced working costs and intensive mining. The process of mechanisation of the mine was, however,

[1]Dunn, Mica, p. 41.

rather slow and by 1939, out of a total of 812 mines under the scope of the Indian Mines Act, only in 64 had machines been installed. During the course of the present war, special efforts have been made by the Geological Survey of India to accelerate the pace of mechanisation as a means to stepping up production, and considering the difficulties of wartime shipping, they have been able to help the mine-owners in a very fair measure. Even in the Rajputana area, where there were no mines working under mechanical power in 1939, quite half a dozen had been mechanised by the end of 1944. It would seem, therefore, that an overwhelming proportion of mines still continue to be worked with the aid of *kodalis* and spades. It is only the bigger firms who have employed the services of qualified mining engineers. These engineers have been given the charge of a group of mines situated in a small area or "division" and it is their duty to guide the mining operations in the mines under their charge. But elsewhere mining operations are being carried on under the supervision of ignorant local *sardars* who follow the rule-of-the-thumb method in pursuing a mica vein.

The three main stages in the mining operations are prospecting, developing and stoping. As has been said above, there is no scientific way to prospect mica. Men in search of new mica veins scan the area for surface indications—such as quartz, felspar and small jutting pieces of mica. Where these indications are found, a pit is dug and if mica bearing pegmatites appear, an "adit" is laid. An adit is a horizontal boring and this passage meets the vertical pit at some distance. If this vertical and horizontal boring leads to a good vein, the next stage, *viz.*, developing begins. It is said that out of a hundred trial pits if even one leads to a workable mine, the trade becomes very profitable. Prospecting is done either by the firms departmentally or through contractors. In the former case, bands of coolies under experienced *sardars* are sent out to dig pits at suitable places. These are time-rate workers and their wages are not affected by the successor failure of prospecting operations. Contracts for prospecting are of two types : (1) where the owner or the lease-holder of the mining area binds the contractor to sell all mica obtained from the pits to the former at fixed rates ; and (2) where the contractor agrees to pay part of the profits (25 to 50 per cent.) to the owner or lessee.

If prospecting results in the discovery of a good vein, regular mining operations are begun. The vein is pursued whichever way it goes and the shafts may take any angle between the horizontal and the vertical. At first the direction in which the vein is likely to broaden is found out and strikes are laid in that direction. These strikes branch off more or less horizontally from the shaft at suitable levels, and lead to the spot known as a "working face," where holes are being drilled. The efficiency of mining operations depends considerably on the manner in which blasting holes are drilled. While in other countries engineers are employed to supervise the job, in almost all Indian mica mines this is done under the care of men who know next to nothing of engineering. In a well-developed mine five to six faces may be worked simultaneously. While developing a mine all the available mica is not taken out and mica-bearing pillars are left behind to serve as props for the roof of the stikes, and when further developing leads only to barren rocks, an "about-turn" is announced and the mine is worked back to the pit-head, all mica now being extracted from the pillars. This last phase of the mining operations is known as "stoping".

In order that a mica mine may be developed on proper scientific lines, a fairly large amount of capital has to be risked in the early stages, regardless of the daily production of the mine. It is, however, the big owners alone who can afford to make large investments which may become "dead" if the mine proves barren. The small mine-owner operating in the field usually meets the

working expenditure from the daily produce of the mine, and if the yield is insufficient for the purpose even in the early stages, the mine is abandoned. This method of mining, regarded by some as inevitable and by others as "uneconomic and wasteful" is the subject of a heated controversy. The technical aspects of the question are beyond the scope of the present enquiry, but it is obvious that a mine-owner who has to depend upon the daily produce of mica from his mine to meet the working expenses cannot possibly look after the interests of the workers. So far as labour conditions are concerned, the issue of the big owner *versus* the small owner can be decided definitely in favour of the former. It is a fact that the bigger firms have actually provided better amenities to workers than the smaller ones. Housing, sanitation, electrification of mines, provision of medical aid are mainly items of capital cost which only the bigger owners can afford, for they alone can spread out the expenses over a number of mines of which some may be successes and others failures.

A brief description of the processes in a mica mine may be given here. The main work underground is the drilling of holes, blasting, and the haulage of broken pieces of stone known as "muck" and of mica books. A number of holes are drilled into the working face by hand or machine drillers. Where hand-drilling is done, three workers known as a "couple" are employed to work one drill. One of them holds the drill and the other two hammer it alternatively. In some of the bigger mines machine-drills are used. The octagonal drill is held in position by the machine-driller and is rotated mechanically. Although hammering is eliminated in this case, the process becomes more strenuous for the driller. To hold the heavy drill in position is difficult in itself, and the jerks which the worker has to bear would tire out even the strongest of men within a short time. Blasting is the job of the shot-firer, who charges the hole with explosives, inserts one end of the fuse inside the hole and then ignites the other. Immediately thereafter he rushes out for shelter. Blasting is always done at the end of a shift and it is only when the fumes have disappeared are the workers of the next shift allowed to enter the mine. In the mechanised mines haulage of muck and mica books is done mechanically, a baby hoist engine being employed. Unskilled coolies underground fill buckets with muck and a similar batch unloads the buckets on the surface. In non-mechanised mines, muck-baskets are relayed in by workers sitting on every third rung of wooden ladders. *In a number of mines women and children are employed for this work.* Operations underground are supervised by a *sardar* who is specially responsible for the conduct of the workers recruited by him. On the surface, female coolies are also employed to fetch water from distant places. They had to carry heavy loads on undulating forest roads and this work is obviously very strenuous for them. Apart from these, in mechanised mines, *khalasis* (skilled and trained workers) are employed on boilers and air-compressors. At the apex is the mine "manager" who is responsible for the safety of the workers and general supervision over the mining operations. This ill-paid *babu* is completely ignorant of even the elements of mining and spares himself as far as he can the strain of going to the working faces and supervising work personally. In practice, therefore, it is the *sardar* who manages the entire show underground.

The first step in the manufacture of mica is taken at the pit-head itself where the mica books are sorted according to size into *bara mal* (big pieces) and *chhota mal* (smaller pieces) and then despatched to the factories. The significance of this sorting out is that the bigger size books are handled in the factories by adults and the smaller size by children. In the factories crude mica is first opened with a double-edged knife and mica books are reduced to the required thickness. If opening is done with care and skill, bigger size mica is obtained in greater proportion. Opened books are given to cutters for being

dressed with sickles. The cutters eliminate cracked or faulty parts of the book and make the edges slanting rather than perpendicular to the surface of the book. Sickle-dressed blocks (S.D.B.) of mica are next sorted according to size. The size of a piece is determined by the area of the largest rectangle that it can enclose and though the workers are provided with tin or cardboard rectangles to test the size of a piece, many of them are able to do it by sight. S.D.B. mica of every size is then sorted according to quality and this requires considerable experience and skill. There are yet no standardised qualities and every big firm has its own standards and names for different qualities. Further, the sorter eliminates flaws as far as possible and often, by removing a thin layer from the block, improves the quality appreciably. S.D.B. mica, after having been sorted according to size and quality, is either sold in that form or split in book-form or according to specifications into condenser-films. Mica blocks of size 6 and below are mostly manufactured into ordinary or dusted-loose splittings in homes, though similar work is also done in a few factories on a small scale. Children are employed as sorters of *chhota mal* and women as condenser film makers and book-form splitters. Loose splittings, before being packed, are sieved in order to remove very small pieces. The final process is to pack the manufactured goods in wooden boxes and to despatch them.

Nature of Accidents.

The frequency of accidents in mica mines is much lower than what is in coal mines due to the fact that the former are non-gassy and there is little mechanisation. This should not be taken to mean, however, that accidents in mica mines occur rarely or that their number is negligible. According to allegations made by labour leaders, it would seem that minor accidents occur very frequently and that serious accidents resulting in the death or disablement of the victims are not too uncommon either. What happens, according to them, is that the matter is soon squared up by the payment of a small sum of money,—much less than what the injured worker would be entitled to under the provisions of the Workmen's Compensation Act. Coming to the nature of accidents, it may be noted that, whatever the depth of the mine, it has to be negotiated by wooden ladders. Climbing even 50 feet on a ladder is a difficult job. One cannot adequately describe what a worker must feel like when he has climbed 500 feet or more. The shafts in which these ladders are installed are very narrow, and if one were to slip down, there would be no chance of a safe delivery on the next floor. Cases were reported by workers where men had swooned after climbing 400 or 500 feet, losing limbs if not life. Moreover, a number of accidents are caused because of the most inadequate lighting arrangements in mica mines. It is due to the absence of fixed lights that shot-firers particularly get involved in serious accidents. They charge the holes with explosives, connect the fuses, ignite them and rush out for shelter with only a candle in hand. If while running, the candle goes out, there is little chance of their escaping an accident. In the darkness that surrounds the shot-firer, he cannot proceed further and even if he does rush forward, he runs the risk of striking against a jutting rock and falling down. There is hardly any time at his disposal and bang goes one shot after another. He is either killed or, if he is lucky, loses a hand or an eye. It is extremely surprising that even for such a dangerous operation, electric torches are not provided. There is another way in which shot-firers get involved in accidents. According to the Rules made under the Mines Act, not more than 6 holes can be charged and blasted by one shot-firer at one time. But sometimes he is made to manage 8 or 9 holes with the result that before he has time to escape the first ignited fuse blasts the explosive injuring the shot-firer. It is also the duty of the shot-firer to count the shots as they fire. It is not improbable that he may miscount, and accidents have occurred due to drilling into an unexploded charge or a misfired shot.

Despite the fact that mica mines are found in hard rocks only, a number of fatal accidents have been caused by the subsidence of sides. In one case, three persons were working on the floor of an excavation 20 feet deep when a fall of side (5 ft. × 5 ft. × 1½ ft.) occurred from a height of 5 feet, killing one man instantaneously. In another excavation 25 feet deep a mass of schist (6 ft. × 6 ft. ×2¾ ft.) fell down from the hanging wall from a height of 8 feet, killing one man. While negotiating a mine workers face the danger of falling down a shaft 50 to 100 feet below. Three men lost their lives in 1938 by falling down shafts and landing 60, 66, and 80 feet below respectively. Accidents in mica mines have also been caused by things falling down a shaft. If the baskets of debris, while being hoisted by a windlass up a shaft, become disconnected and fall, workers standing below are seriously injured or killed.

The first among the remedial measures against accidents in mica mines would, therefore, seem to be the substitution of electric lights in place of candles and kerosene lamps which saturate the atmosphere with monoxide fumes, besides being unreliable in a current of air. Other important measures are installation of cage-lifts for negotiating the mine and the employment of only trained blasting *mistries*. Apart from these, the existing provisions in the Indian Mines Act and Rules made thereunder for the safety of the worker should be strictly enforced. It is only when the provisions for the fencing of dangerous parts or the pillaring of roofs and sides are disregarded that accidents occur in these parts of the mine. Another serious instance of the disregard of the provisions of the Indian Mines Act is a common practice on the part of mine-owners not to provide first-aid appliances like bandages, a stretcher, a chest of primary medicines, etc., at the mines. When accidents occur, the victims are conveyed on *khatolas* to dispensaries which may be 10 to 20 miles away without a prior application of first-aid methods. In most cases this leads to further complications which sometimes prove fatal. It is, therefore, imperative that all mine-owners should be required to keep the requisites for efficient first-aid, and severe punitive measures should be taken against those who exhibit recalcitrance.

Occupational and Other Diseases.

Diseases which mica workers suffer from may be classified as (a) those that are directly attributable to mining operations and working conditions, and (b) those that are caused by the configuration and natural vegetation of the mining area. In this connection, we could collect some information in the Bihar area, and the following analysis is based mainly on that information.

(a) The following diseases may be considered under the first category :—

(i) *Silicosis*.—This is a disease of the lungs and is attributed to dry machine-drilling of quartz rock. Machine drills have octagonal ends with a regular bore running right through the drill. The drill is rotated by machine and quartz dust produced in the drilling process escapes with great force through the bore and strikes the driller right on his nose. Within a few seconds thick clouds of quartz dust envelope the driller and he inhales that dust continuously. The tiny quartz pieces enter the body and injure the lungs. The first symptom of silicosis is bronchitis, and this gradually develops into silicosis proper. The incidence of the disease is fairly high but due to the excessive turnover of labour, it is not detected early. What saves most of these workers from early death is their seasonal migration to agriculture. If a driller works continually even for one whole year, he cannot escape catching the disease and within 5 years or so he may die. One employer stated that he had lost 16 of his best drillers within the past five years. It seems that the only possible way of saving the drillers from this disease which proves fatal in nearly all cases is to prohibit dry machine-drilling by an order under the Indian Mines Act. Of their own accord so far only the Chrestien Mining Company have introduced wet-drilling in some of their mines, but no other

firm is even planning to follow suit, at any rate during the course of the present war. It may be noted here, however, that all employers declared themselves in favour of statutory prohibition of dry-drilling.

(ii) *Dyspepsia* is another common disease in the mining area and is directly attributable to the lack of clean drinking water at the mines. Female coolies are employed to fetch water from the nearest available source which is often a stagnant pool. Only a few concerns arrange to carry clean water on lorries to some of their more accessible mines. In the unclean pond-water that is generally supplied, a number of minerals are dissolved and these cause dyspepsia. This is amply borne out when we compare the number of dyspepsia cases treated in two hospitals—one situated in the heart of the mining area, where water supply is very defective and the other in Jhumri-Telaiya town, where there is an abundant supply of clean water :

TABLE 2.

Number of Cases treated for Dyspepsia.

Location of hospital.	Total number of out-door cases.	Cases treated for dyspopsia.	Percentage.
Dibour mining area	3,320	464	14
Jhumri-Telaiya	2,918	50	1·7

(iii) *Rheumatism.*—Not even in the biggest and deepest mica mines have lifts been installed and, as stated earlier, wooden ladders are used instead. The underground workers have to climb these ladders at least twice each day, and, if the mine happens to be deeper than a hundred feet, this puts a heavy strain on the leg-joints. As above, the number of cases treated for rheumatism may also be compared :—

Mining area	184 out of 3,320	(5·5%)
Town area	57 out of 2,918	(1·95%)

(iv) *Bronchitis.*—This is often the first symptom of silicosis and there are two strong factors conductive to the development of the disease,—dry machine-drilling and the use of kerosene lamps for lighting purposes underground. Generally no care is taken of the disease in the early stages, and the usual defence of the mine-owner is " Everybody coughs here ; this is not a disease to be worried about ". Similar is the attitude of the ignorant miner also.

Apart from the diseases mentioned above, there are some skin diseases and ulceration. These two types of diseases accounted for 20.9 per cent. of the total number of cases in the Dibour (mining area) hospital. Almost all workers walk about barefooted and the skin of their feet gets injured in the course of time, and ulcer and skin-diseases are caused. The following figures relate to cases of ulcer :—

Mining area	362 out of 3,320	(10·9%)
Town area	95 out of 2,918	(3·2%)

(b) *Malaria and Ankylostomiasis.*—Among diseases caused otherwise are malaria and ankylostomiasis. Malaria is rampant in all the three mica mining areas, Bihar, Madras and Rajputana. In the Rajputana mica-belt malaria takes an epidemic form during and after rains, and a large number of mines have to be closed down due to lack of labour supply. Out of a total of 6,238 cases treated during 1943 in the two hospitals in Bihar from which figures could be obtained, 2,120 or over 33 per cent. were treated for malaria[1]. Since the medical aid is hopelessly inadequate, the disease soon takes a malignant

[1]A part from these, in the mining area hospital out of a total of 154 indoor cases, 135 cases were treated for malaria.

form and some cases even prove fatal. Since no latrine accommodation has been provided at the mines, workers spread out into the open. The ground adjoining the mines is covered with grass and a certain insect which thrives on the top of grass blades enters the body, causing anæmia and ankylostomiasis. The following is the annual return of diseases for the year 1943 from the Chatturam Horilram Hospitals in Bihar.

TABLE 3.

Chatturam Horilram Hospitals.

Annual Return of Diseases for the year 1943.

S. No.	Diseases.	Telaiya.	Dobour	Indoor (Mining Area)	Remarks.
1	Abscess	60	35	..	
2	Anaemia	15	169	..	
3	Abd. colic	30	6	..	
4	Arthritis	20	2	..	
5	Asthma	9	..	..	
6	Bronchitis	190	244	2	
7	Burns	..	..	1	
8	Cholera	20	9	..	
9	Debility	10	..	..	
10	Dyspepsia	50	464	..	
11	Dropsy	..	..	..	
12	Dysentery	45	62	2	
13	Diarrhoea	32	69	4	
14	Dysmenorrhea	..	..	..	
15	Eye Diseases	75	39	..	
16	Filariasis	..	..	..	
17	Ear Diseases	50	13	..	
18	Fracture	..	..	..	
19	Gastric ulcer	10	..	..	
20	Generative maleorgan diseases	..	..	..	
21	Goitre	..	..	..	
22	Injury	187	211	4	
23	Influenza	150	101	..	
24	Insect bite	..	..	..	
25	Mouth Diseases	82	50	..	
26	Malaria	1,362	758	135	
27	Metazol Inf.	..	7	1	
28	Muscular Atrophy	..	..	..	
29	Nervous	20	88	..	
30	Neuralgia	30	..	..	
31	Pyrexia	37	1	..	
32	Nephritis	10	..	..	
33	Rheumatism	57	184	..	
34	Leprosy	..	..	..	
35	Palpitation	..	..	..	
36	Pleurisy	..	..	..	
37	Vomitting	5	..	..	
38	Skin Diseases	97	325	..	
39	Throat Diseases	25	10	..	
40	T. B. Gland	15	..	..	
41	P. P. Phthisis	..	..	..	
42	Ulcer	95	362	5	
43	Venereal diseases	15	14	..	
44	Tumour	..	..	..	
45	Indigestion	90	94	..	
46	Headache	27	..	..	
47	Urinary Diseases	..	..	..	
48	Nose	8	2	..	
49	Hydrophobia	..	1	..	
	Total	2,918	3,320	154	

Total: 6,392 patients.

CHAPTER III.—BIHAR.

For industrial labour in Bihar, mica industry of the Province is easily one of the two most important, as it provided work to more than a lakh and a half persons—a figure matched by employment in the coal industry alone. Mica mines are spread throughout a belt about 1,500 square miles in area and containing extensive deposits of ruby mica—the best quality of the mineral. The origin of the industry dates back to 1870 when some enterprising people, seeing great possibilities for the mineral in the nascent electrical industries, started mining operations. For a long time thereafter the industry developed in a leisurely fashion. It was only during and after World War I that the demand for mica increased and the mica industry of Bihar began to develop at an accelerated pace. During the last decade the industry has taken great strides forward and production both in mines and factories has gone up year by year. In respect of splittings and high value blocks Bihar has always had a virtual monopoly and during the course of the present war, the Province has supplied condenser-films, wrappers and other finished goods to the United Nations in increasing quantities. The mica mines in Bihar are spread over an area covered with dense forests and served by a few ill-kept feeders to some arterial roads. Bad transport is, therefore, one of the factors hindering the smooth running of the mining trade. Mica obtained from the mines has often to be carried in head-loads for some distance before being picked by motor vehicles. The factories are located in Kodarma and Giridih but splittings are manufactured in village homes throughout the districts of Gaya and Hazaribagh. Mass production on a factory scale is possible without the use of machine only because of the availability of an excessive supply of skilled labour in Kodarma and Giridih and yet as we shall see later, labour in the Bihar mica industry, both in mines and factories, is paid miserably low wages,—lower even than those paid in Madras and Rajputana. Apart from this exploitation of labour, the mineral itself is being mined in a most wasteful and uneconomic manner as has been shown already.

MINING.

While it is in Bihar that most of India's valuable mineral deposits are located, the Province does not enjoy a monopoly position in the world in respect of any of them except superior quality mica. Mica does occur in other parts of this country and of the world but the quality of these deposits is so poor that they cannot rival Bihar mica in chemical or physical properties. The mica mining industry provides employment to the largest number of workers in Bihar excepting, of course, coal mining. The following was the position with regard to employment in the important mining industries of Bihar during 1939 :—

Coal	121,214
Mica	23,896
Iron-Ore	9,666
Copper	3,085

The figure for mica excludes a large number of workers employed in *uparchalla* workings. As will be seen later, employment in mica mines has gone up by about 100 per cent. since 1939.

Mica mining was started in Bihar about the year 1870 and in the course of the past 75 years it has developed into one of the major industries of the country, but, unfortunate though it is, its development has been in a most haphazard way and on unscientific lines. " In Bihar, the large mines like those owned by Messrs. Chrestien & Co., and Messrs. Chatturam Horilram are properly equipped and modernized ; but the large number of small mines, owned by small capitals, are lacking in proper machinery and equipment. Mining is confined to narrow regions ; the mica is scooped out from the easily

accessible portions and large quantities of mica remaining in the depths are abandoned ; the mines are gradually buried under debris and are overgrown with dense vegetation ———— Colossal damage is being done to India's mica resources by these people and proper steps should be taken to protect the mica mining industry from such seekers of fortune."[1] The Bihar mica mining industry is undoubtedly in a most chaotic state and it is particularly to remedy this situation that the Government of India have instituted an enquiry into the conditions of the industry. Earlier the Bihar Labour Enquiry Committee had surveyed labour conditions in this industry but the problems which the Committee drew attention to in 1940 continue to exist in Bihar even today. In fact they may be said to have assumed larger proportions.

Employment.

The Bihar Labour Enquiry Committee stated in their report that the total number of workers employed in the Bihar mica mines in the year 1937 was 23,473. Figures for employment for 1938, 1939, 1942 and 1943 are given below. Workers have been classified according to occupations as well as sex. This information has been obtained from Annual Reports of the Chief Inspector of Mines for the years 1938 and 1939 and directly from the C.I.M. for 1942 and 1943. It gives an idea as to the trend of employment as between two pre-war and two war years.

TABLE 4.

Average number of persons employed daily in and about the Mica Mines in Bihar, registered under the Indian Mines Act.

	Sex.	1938.	1939.	1942.	1943.
UNDERGROUND					
Foreman and Mates	Male	827	790	1,330	1,418
Miners	,,	7,915	7,666	15,700	16,604
Other skilled labour	,,	1,598	1,844	3,016	2,562
Other unskilled labour	,,	4,357	4,979	11,289	11,595
Total ..	,,	14,697	15,279	31,335	32,179
OPEN WORKINGS.					
Foreman and Mates	Male	229	203	271	361
Miners	,,	2,656	2,596	3,040	3,387
Others skilled	,,	377	449	620	845
Others unskilled	,,	1,055	1,078	2,130	2,502
Total Males ..	,,	4,317	4,326	6,061	7,095
Females	Female	322	274	186	233
Total Males and Females		4,639	4,600	6,242	7,328
SURFACE.					
Clerical and supervising staff	Male	922	1,078	1,549	1,545
Other skilled	,,	1,523	1,530	1,877	1,638
Others unskilled	,,	909	902	2,001	2,078
Females	Female	668	498	946	1,663
Total Males and Females ..		4,022	4,027	6,373	6,924
GRAND TOTAL ..	Male and Female	23,358	23,896	43,955	46,431

[1] Journal of Scientific and Industrial Research, October 1943, p. 39.

in December, 1944, total (average daily) employment in Bihar mica mines was probably not more than 30,000. This figure, however, does not include workers employed in *uparchalla* workings. Due to shortage of labour prospecting has had to be cut down considerably. This may also be due to the purchasing policy of the Joint Mica Mission. We may, however, safely estimate the number of workers employed by "impecunious prospectors" at 20,000. In the earlier months of 1944, the number of *uparchalla* workers was considerably higher.

Sources and Recruitment of Labour.—In the earlier days of the industry only the inhabitants of adjoining villages were employed in mines but as the industry developed, demand for labour also increased and Santhals from the Chota Nagpur Division migrated into the area seeking employment in mines. The mine-owners on their part were only too willing to employ these hardy people. Since the beginning of war, a large number of Santhals have migrated to Assam, where better paid employment is available. The following shows the composition of mica mining labour in Bihar.

TABLE 5.

Composition of the Bihar mica mines labour.

	Pre-war.	Present.
Santhals	60%	25%
Depressed Classes	5%	5%
Rajputs, Gwalas, Ghatwars	35%	70%

Recruitment.—Labour in the mica mines is recruited through *sardars* who are sent out with funds to villages in the vicinity. Sometimes *sardars* employed in one mine go to another mine and try to tempt away workers of that mine by paying advances. Due to shortage of labour these days, this practice is gradually becoming more common. Some mines are situated in the *zamindari* areas and their proprietors do not have any difficulty in recruiting labour. They just declare that so many workers are needed and their tenants cannot afford to ignore the declaration. As has been stated earlier, recruiting *sardars* do not get any commission for their work. They are time-rate employees, but their wages do depend upon the number of workers recruited by them. The *sardars* has an undue influence over the workers. He can easily charge his fees for providing employment. It is true that there is scarcity of labour these days in the area and, therefore, the exploitation of male labour on an appreciable scale is not possible, but this scarcity of adult male labour has created a demand for child and female labour. It is from these new aspirants to employment in mica mines that the *sardar* extracts his booty. Apart from this, the *sardar* in charge of workers recruited by him but his supervision of their work is in no case tempered by benevolence or mercy. As for the tenure of service, the less said the better. In normal times there is no security of employment nor is any notice for the termination of service usually given. It is only when a large scale retrenchment becomes necessary that workers are informed one week in advance that their services would not be required later. The relations between employers and employees are governed by custom and verbal directions of the former and no effort has been made to formulate any standing orders to govern these relations.

Labour turnover.—The Chrestien Mining company have supplied the following figures of labour turnover in their mines :—

TABLE 6.

Labour turnover in the Chrestien Mining Co.

Average daily number of workers employed during the month	Number of workers who left.		
	Permanent	Temporary	Total
5,530	360	600	960

This works out at 17.3 per cent. per month, and may be taken to be fairly representatives of the industry as a whole. In the case of small mines, labour turnover is higher, rising to 22 per cent. This is due to the fact that employment in small mines is more insecure. Work is suspended off and on with the result that actual monthly earnings of workers are lower than those of workers employed in bigger mines. There are three main reasons for the high turnover in mica mining : (a) *Proximity of coal mines* : As has been mentioned earlier wages are much higher in coalfields. (b) *Recruiting methods* : Sometimes agents of one mine pay advances to employees of other mines and cause them to leave their employers. (c) *Seasonal migration* : The mica industry has not been able to build up a stable labour force. A large number of workers go back to agriculture during ploughing, planting and harvesting seasons. However, it is not true that work in the mica industry is regarded as secondary. More time is given to mica than to agriculture. The truth is that wages are not high enough to keep the workers from going elsewhere, if an opportunity for earning a little extra income comes their way. The agricultural outlook of the worker is still there ; he has not broken for good his old village ties. The temptation of going back to his home is very strong and this must naturally be so in view of the wretched working conditions and low wages in mines. While at the mine, the worker find himself hammering drill throughout the day in dark, damp and dingy surroundings. To be away from such an atmosphere is too strong a temptation to be checked. It may be said here that seasonal migration to agriculture saves good many mines from a very early death. Whatever be the causes, the high labour turnover in the micafields can be remedied to a considerable extent by providing security of employment and better amenities of life, by increasing wages to the level of those paid in coalfields, by improving conditions of work, and by making arrangements for better housing.

Absenteeism.—Figures of absenteeism are not maintained anywhere. An examination of the attendance registers revealed that a large number of workers absented themselves for a day. About one-third of the total number of workers did not report themselves to duty on the day following the pay day. Some of them, however, absented themselves for another day. Absenteeism is largely due to the drink evil. After prohibition had been called off, a large number of liquor shops were opened in the mining area near the mines or in the neighbouring villages. After working strenuously for 8 hours or more, the workers must need have some diversion and liquor naturally attracts attention. Some of the workers said that in order to bear the terrible strain, it was very necessary to drink. In the absence of nutritive food, the argument seems plausible and weightly. Sickness is another important reason. Malignant malaria is rampant throughout the mining area. Workers are not given quinine as a preventive measure. Only when the disease takes possession of them are they given any medicines, if at all. Adequate medical aid is a crying need of the industry. Apart from sickness, home visits or marriage celebrations are also responsible for absenteeism but these account for only a fraction of the total number of absences.

There is no system of apprenticeship in any of the concerns but for supervisory posts apprentices are trained. Ordinary labour, whether skilled or unskilled, is not trained under any system of apprenticeship. Nor is there a system of graded or incremental promotion in any of the establishment. Increments are given at the discretion of the management. The example of one worker may be cited here, who after working for 16 years for same employers, was getting only Re. 1 per day,—only an anna per day more than his fellow workers in the same occupation. The position with regard to granting paid holidays is no better. It was found that holidays with pay are granted to the daily wage-earners only in one concern,—the Chrestien Mining Company, and that too for 3 days during the Puja festival. Elsewhere all holidays are without pay. In the Chrestien Mining Company, monthly paid staff are allowed 30 days' leave with pay on completion of twelve months' satisfactory service. Besides, sick and casual leave is also given at the discretion of the management. In other firms it was found that supervisory posts were held by the relatives of the proprietor and for them there could be no system of leave with pay. Even for the monthly paid staff at the mines, *e.g.*, the durban or the manager, there are no leave-rules and leave is granted at the discretion of the management. As regards fines, in view of the scarcity of labour it is not surprising that fines are not imposed anywhere. If the worker is found unstisfactory, he is just warned ; and if he does not mend himself even after warnings, he is dismissed.

Working Conditions.

Shifts and Hours of Work.—For underground workers, hours of work, as shown in the registers, are 8 without any recess. For surface workers, the hours of work are 10, with an hour's rest the spreadover being 10|11. Except in cases of emergency only 6 days in a week are worked but the weekly holiday does not necessarily fall on Sunday. The practice is to make the market day a holiday, so that workers may be able to make purchases. As this falls on different days in different areas, the weekly holiday also differs from mine to mine. Most of the mines are working two shifts of 8 hours each, now. Previously a large number of them were working *three* shifts a day.

One shift :—8 a.m. to 4 p.m.

Two shifts :—(*a*) 12 Midnight to 8 a.m. — First Arrangement.
8 a.m. to 4 p.m.

(*b*) 8 a.m. to 4 p.m. — Second Arrangement.
4 p.m. to 12 Midnight

(*c*) 12 Midnight to 8 a.m. — Third Arrangement.
4 p.m. to 12 Midnight

Three shifts :—12 Midnight to 8 a.m.
8 a.m. to 4 p.m.
4 p.m. to 12 Midnight

General shift for surface workers :—8 a.m. to 1 p.m.
2 p.m. to 7 p.m.

Underground work.—There is a *widespread* practice of employing the same set of workers for 9 shifts in the course of 6 days. On three days in the week, a worker puts in 16 hours of work per day (2 shifts each day) and on the remaining three days, he works for the usual 8 hours a day (one shift each day). Generally, Mondays, Wednesdays and Fridays are "two shift" days and Tuesdays, Thursdays and Saturdays are "one shift" days. Some of the employees are even ignorant of the fact that this is a breach of the Indian Mines Act and hence they show in their attendance registers a worker having put in 9 days' work in six days. Such entries were found in attendance registers at a number of places. Clever people do not make such mistakes, although they have no scruples against employing the same men for 16 hours continuously as a miner. Sometimes, the same worker is employed in two consecutive shifts under differ-

ent names. It would be no exaggeration to say that the practice is widespread. The employers seek to justify their action on the plea that miners refuse to work unless employed for 9 shifts per week. The poor worker is too ignorant to foresee the repercussions which over-strain may bring after a few years. It is the present that counts with him and one can only imagine how appalling must be the condition of those who are impelled to work underground for 16 hours in a day of 24. Even here the workers cheated, for while the usual rate for an unskilled coolie is 0-9-0 to 0-10-0, he is made to agree to work on 0-8-0 per shift *if he wants to avail of the privilege of working extra hours !*

The good old days, when the spade, chisel, hammer and drill were the only implements used by miners, are over now. Mica mines, today, are as deep as coal mines. The greatest vertical depth is 1,000 feet and in the case of inclines, 1,500 feet is the record so far. These figures compare well with those of coal mines. But the similarity cannot be pursued any further. Conditions inside a mica mine stand no comparison with the conditions in coal mines. Reference has already been made in Chapter II to the use of wooden ladders for negotiating the mines, and of the kerosene lamp and candles for lighting purposes. It is in an atmosphere stuffed with the deadly monoxide and dioxide of carbon that workers have to drill for 8 or even 16 hours each day. The ventilation in upper levels is generally good in the mines owned by the bigger firms, but as one goes deeper conditions worsen. In the mines owned by the small mine-owners, ventilation is poor because more attention is paid to the extraction of mica than to hygiene and sanitaton. As one approaches the depth of a mine, one hears the drone of drillers at work. When one reaches the actual spot where drilling is being done, one witnesses a none too pleasant sight. Men with a chit of cloth round their waist are seen hard at work,—plying heavy hammers, in the dim light of kerosene lamps or candles in an atmosphere laden with gas and dust. One is, therefore, rightly appalled to know that all this is for 8 or 10 annas a day.

Wages and earnings.

The wage level in the mica industry is probably the lowest in India, barring perhaps certain other unregulated industries like Shellac and Bidi-making. Unfortunately, the low wages in the factory section of the industry have not induced labour to keep away or seek alternative, employment. This is mainly due to two factors. In the place, the work is not very strenuous ; and, secondly, practically whole families of workers appear to be working in either the factories or their own homes, and *joint* incomes are better. But in the *mining* section, the work is extremely strenuous and risky, while the mines are unhealthy (with malaria and hookworm widely prevalent) and situated in far-off and inaccessible jungles. However, in the adjoining coal fields of Giridih, Jamadoba and Jharia, labour conditions are very much better, with higher wages, dearness allowances, better grain concessions and other facilities, such as housing, medical treatment, etc. Also a considerable amount of military contract work has been going on in the neighbouring districts of Bihar. Owing to all these reasons, much of the mining labour is being diverted to other areas in spite of somewhat better wages offered. On the other hand, at Giridih, Domchanch and other mica manufacturing centres, as will be seen later, the restricted purchase policy of the Joint Mica Mission and their high requirements of quality have caused serious unemployment both in the factories and in the domestic splitting trade. Thus, in the Bihar mica industry, today, we witness the paradox of scarcity of labour (in mining) side by side with unemployment (in the manufacturing section).

On the whole, the basic wage position, for reasons already stated in the previous paragraph, is better in mining than in the factory section of the industry. In the case of bigger mine-owners, wages seem to have

gone up by about 80 per cent. 1938. This is particularly true of mines situated in the Kodarma Reserve Forest. We found that in areas like Masnodih and Gawan, on the other hand, wages were lower than those paid in other areas. In the Masnodih and Gawan mining divisions, labour is practically immobile owing to its being closely attached to agriculture. Apart from this, there was a noticeable difference between the wages paid by the bigger mine-owners and those paid by the smaller owners, the position being less favourable in the case of the latter. In a memorandum submitted by the Mica Mazdoor Union of Giridih, it has been stated that the average earnings in mines have gone up only by 25 per cent. since 1938. It is also their contention that in the factories, wages have risen more. But we did not find that these statements were borne out by the actual figures, and, in any case, in view of the scarcity of labour in the mica mining area, the contentions of the Mazdoor Union do not seem to be plausible. We were told by the labour leaders that the increases mentioned by the mine-owners are merely fictitious, fabricated for the purpose of evading the E.P.T. It was also stated that it was difficult to verify mining wages owing to the inaccessible situation of mines, unlike wages in factories which were situated in towns. Our investigations show that, broadly speaking, this statement is not accurate. The data collected by us on the spot at pitheads mostly bore out the figures supplies by the companies.

The tables in Appendix I show the rates of wages paid to workers employed indifferent occupations in August 1939, and November 1944. The exact wage position with regard to each occupation in the mining section is summarised below :—

i. *Unskilled coolie.*—Before the commencement of war this class of labour was getting 0-6-6 per day. On an average, it is now paid 0-9-0 per day as basic wages. This means an increase of 38.4 per cent.

ii. *Hand-drillers.*—Since 1939, the wages of this class have gone up from 0-8-0 to 0-12-0 per day, showing an increase of 50 per cent.

iii. *Machine-driller.*—In 1939, his wages were 0-13-0 per day. In November 1944, he was being paid Rs. 1-2-0. His wages have thus gone up by 37.5 per cent.

iv. *Sardars.*—Wages paid to *sardars* differ considerably from mine to mine. However, taking the average, the wages of this class show an increase of 33.3 per cent. since 1939.

v. *Shot-firer.*—Exactly the same increase (33.3 per cent.) has occurred in the basic wages of the shot-firer. In 1939, he was paid 0-12-0 per day, while now he is getting Re. 1 per day.

vi. *Fireman.*—Wages have recorded a rise of 50 per cent. from 0-9-0 per day to 0-13-6 per day.

vii. *Carpenter.*—Wages have nearly doubled since 1939 in this case, having risen from 0-12-0 to Rs. 1-8-0 per day.

viii. *Females.*—Their wages have gone up from 0-5-0 to 0-7-6 per day, an increase of 50 per cent.

It may be pointed out here that the wage position is different in Masnodih and Gawan. As stated earlier, the level is generally lower there than in the K. R. F. zone. As may be seen from Table 3 in Appendix I, however, the increase in the Masnodih and Gawan areas is not less as a percentage than in the K. R. F. zone, although the absolute position is less favourable now as it was always before. It may also be mentioned that, generally speaking, the wage position is still worse in the mines owned by *zamindars*, under proprietors' licences, and that, on the whole, it was more satisfactory in private mines than in the *Government* mine at Mahesri !

Dearness Allowances and other Concessions.—As regards dearness allowances, it appears that the figures supplies are inclusive of dearness allowances, except in the case of the one or two concerns like Messrs. Chatturam Horilram & Co. who are paying D. A. at 2 annas in the rupee. At the instance of the Joint Mica Mission, food-grains are being sold at controlled rates in the K. R. F. zone. In this connection, some of the companies stated that they purchased grains at a higher price and sold it to their workers at a lower price incurring a slight loss on that account.

Benefits in kind.—During the critical days of 1943, the employers obtained considerable quantity of rice throug the Joint Mica Mission and sold at lower rates to workers at mines ; but since the introduction of price-control, workers find it cheaper to buy in the market than through employers. This is so because the employers are being supplied rice *now* by the Joint Mica Mission at rates much higher than the controlled ones. Hence now the workers are receiving no benefits in kind.

Over-time.—No records for over-time work are maintained in any of the mines. Everywhere we were told that no over-time work was ever necessary. Still, actual hours of work are longer than those shown in the registers but no overtime payment is made.

Agency of Payment.—Wages in the *mines proper* are always paid directly to the worker and not through any agency. In the case of *uparchalla* works, however, which is mostly done through contractors wages to ordinary workers are not paid directly but are paid through or by the contractor. Wages paid by the contractor are usually the same as those paid by mine-owners to their own employees, for the same type of work. Cases have been noticed where wages paid by the contractor were a little higher than those paid by regular establishments. But one must predicate this statement with the observation that contractors are very hard taskmasters. They stick to no regular hours of work and as such the amount of work which they extract out of the poor workers is much greater than the amount of work put in by workers of the same class in mines. Hence the real earnings of contract labour are considerably lower than the real earnings of labour employed and paid directly by a mine-owner. Dismissal and re-employment of workers to effect reductions of wages, as far as the mining industry is concerned were not noticed at all. There is no scope for this practice as there is shortage of labour. Different rates of wages for the same type of work do exist, but in the case of unskilled workers the difference between the highest and lowest rates is very small, being not more than an anna per day. In the case of skilled workers, on the other hand, the two limits are fairly apart. Wage-rates for skilled workers depend upon the experience and skill of the workers and since these qualities vary from individual to individual, rates also differ considerably. For example, one carpenter gets Re. 1 per day and another in the same mine may get Rs. 1|12|- per day. Workers are generally regarded as permanent, hence wage rates depend not upon the terms of employment but upon the length of service. A man who has worked for a longer time generally gets better wages. No efforts have ever been made to standardise wage rates ; nor do the employers have any idea of doing so in the future.

In most of the mines, the period of wage payment in the week, though in a few it is the fortnight. The last day of the week is not necesarily a Saturday. The wage period is so adjusted that the worker gets payment one day before the market day. Wages are paid *two* days after they fall due. Thus if Saturday is the market day, then wages would be paid on Friday and the wage period would be Thursday to Wednesday. Hence, while the wage period may be one week in a number of mines, actual payment may be made on different days, depending upon the market day of the locality.

Deductions.—These are of two kinds, general and special. (a) *General.*—Every worker earning more than one rupee in a week is required to contribute compulsorily *one* pice towards the *gowshala* fund. It means that every worker is obliged to pay -|1|- per month at least towards the fund. (b) *Special.*—On festive occasions, like *Puja, Holi, Diwali,* etc. special deductions are made. We learnt that, during *Puja,* every worker was required to contribute *two* days' earnings towards a " fund ". This fund was managed by the mine manager and sweets were distributed to all the workers. The *Puja* celebrations last for a week. No one, however, checks the accounts, and according to some, the managers appropriate to themselves what is left over !

In the bigger mines, no complaints were made about delay in payment. In the case of small mines, however, payments are, it is stated, delayed considerably, sometimes even by a fortnight. What happens is that the mine-owner goes to the mines with money at his pleasure and distributes wages personally. In one mine, we found that wages had not been paid for one whole fortnight because the owner had not found time to visit the mine.

Two sets of records are kept,—one for the Inspector and the other for the firm itself. Records of actual payment are kept in *bahis,* but in attendance registers also payments are often shown. Not even thumb impressions of the workers are obtained. The Chrestien Mining Company *alone* kept proper records of attendance and payments.

Sanitation and Water Supply.

We did not see urinal and latrine accommodation provided in *any* mine. Reference to this breach of the Mines Act has already been made above. One just wonders what the workers do if while working 500 feet below, they are called upon to answer calls of nature. Lack of arrangements for good drinking water is a crying evil of the mica mining industry. The doctors told us that diseases like dyspepsia, intestinal troubles, etc., were caused by the presence of harmful minerals in the water supplied to the workers. As stated earlier, some of the bigger firms carry water in lorries to mines, but generally women are employed to fetch water from dirty pools 5 to 6 miles away. This water is carried and stored in filthy earthen pitchers or drums. The supply of even such water is inadequate. No water is usually made available for washing purposes. The problem is a very serious one and deserves immediate attention..

Housing.

No adjectives can properly describe the " houses " in which workers are housed. The more temporary amongst them look like tents of leaves held in position by a strong bamboo or wooden pillar. House proper are of two types. We may describe them separately :—(i) *Built entirely of bamboo and grass* : We saw a house built by a mine-owner for workers which was typical. Its dimensions were 30 ft. × 8 ft. × 5½ ft. The walls were built of bamboos and the roofing was of green leaves. The general appearance was that of a cattle-shed. There was hardly any necessity for doors and windows as it was airy from every side. This shed housed one family-worker with his wife and two children along with 10 other workers. There was no privacy for the family. The *choolhas* were separate. Grass had been spread on the floor and workers slept upon that at night. No rent was, however, charged for the accommodation provided. It may be noted here that the other 8 or 10 occupants had been put into the cottage by the employer after the family worker had occupied it. As the worker was not paying any rents, he could not possibly grumble. (ii) *Better type of houses* : Their number is very small and generally they are meant for *durbans, khalasis* or carpenters. There are single-room tenements built in lines and are rent free. Their walls are built either or brushwood or of *kuchcha* bricks, and roofs are built of wooden beams. They are closed rooms with doors but ventilation is very poor. It must be emphasised again that these

quarters are *not* meant for ordinary workers but are reserved for the superior skilled staff. It is important to note here that no latrines or urinal accommodation is provided even for those who live in these quarters with the result that they go out into the open to attend to calls of nature. As has been pointed out earlier, this causes them to develop diseases like ankylostomiasis and anæmia. *Workers do not like to stay in these quarters*, despite the efforts of the employers to make them do so. Workers like to walk 4 to 6 miles each way and prefer to stay at home at night. The employers want them to stay at mines as this would ensure regularity of attendance but the workers, dreading compulsory over-work, prefer to ignore such exhortations. Moreover, their own huts are definitely better built than the quarters provided by the employers.

Indebtedness.

Labour in the Bihar mica mine is indebted either to the employers or to moneylenders in their villages. The employers do not charge interest for the advances they make but the moneylenders charge Re. 1 every six months as interest for every Rs. 5 lent. This works out at a rate of interest of 40 per cent. per annum.

Welfare Activities.

Welfare activities are conspicuous by their total absence. Canteens, creches, entertainments, and washing or any other facilities are things entirely unheard-of in the mica mining area. The bigger firms like the Chrestien Mining Company, Messrs. Chatturam Horilram Ltd., and the Indian Mica Supply Company, have made arrangements for medical aid. Details are given below :—

TABLE 7.

Arrangements for Medical Aid.

Name of Police Station.	Dispensary serving the area.	By whom managed.
1. Kodarma	Kodarma	Hospital Managing Committee.
	Domchanch (Factory) ..	Chrestien & Co.
	Telaiya (,,)	Chatturam Horilram Ltd.
	Dibour (Mining) ..	Do.
2. Jainagar	Markache	Dist. Board.
3. Hazaribagh	Town proper	Hospital Managing Committee.
4. Champaran	Town proper	Dist. Board.
5. Gawan	Gawan (Kaviraji)	Dist. Board.
	Tisri	Chrestien & Co.

Medical aid, wherever it is provided, is free. No arrangements have been made anywhere for child or adult education. When asked about the desirability and feasibility of increasing wages, improving conditions of work, etc., the employers, almost in a chorus, repeat the argument that "Mica mining is hazardous due to the extremely erratic nature of the mica veins and, therefore, the industry cannot afford to spend more on labour." Better houses cannot be built, because one does not know if the mine would continue to give mica even for a week more. This stock argument, however, is patently false. According to the Supervisory Field Officer at Jhumri-Telaiya, an examination of the records of individual mines shows that the average life of a mica mine is 10 years, which in itself is sufficiently long for allowing the building of better houses and making arrangements for the education of children. More than that mica mines in the course of 10 years pay many times more than what a coal mine would, if worked for the same number of years and by the same number of workers. In view of this, mine-owners can easily afford to spend more on labour. Besides, it is certain that if the mine-owners take rough and smooth together, they will not be losers in the end.

MICA MANUFACTURING.

The present war has wrought important changes in the structure of the mica processing industry. Before 1939 Mica processing consisted of a limited number of operations and the metal was exported either as sickle-dressed bloc (S.D.B.) mica or as small size splittings. Mica in this shape was imported by England and America and was manufactured into wrappers and condensers of required specifications. These final processes, though very easy in themselves, enhanced the value of mica greatly. Thus, while the Indian producer was paid low price for S.D.M. Mica, the foreign importer after some manipulations was stated to have sold the same thing for ten times the cost price, appropriating huge profits to himself. It is said that till the establishment of the Joint Mica Mission in India as the sole purchasing authority of Mica, a ring of brokers, with widespread trade connections, controlled the entire foreign market and charged fancy prices. The war brought in its train new problems and it was felt both in England and America that, in the interest of war effort, it would be better to encourage the manufacture of condenser films, wrappers, and book-form splittings in India, where it could be done more cheaply and also more efficiently. Further, to prevent mica from falling into enemy hands, the Joint Mica Mission was sent out to control the production of mica and to purchase mica manufactures and blocks as per requirements of the Allied Governments.

The Indian manufacturer was, therefore, initiated into the mystery of manufacturing finished goods and he found that neither were the new processes complicated nor was it difficult to train up sufficient skilled labour within a short period. In the course of the last five years, the mica manufacturing industry has taken great strides forward and has built up a large skilled labour force. As an illustration of the speed with which Indian labour has learnt some of the new processes, the case of the manufacture of condenser films may be cited here. These are mica splittings of specified size, thickness and quality. In the beginning, micrometers were used by the workers to test the thickness of the film, but now they have achieved such a high degree of efficiency that the same thing is done by feeling the film between fingers.

Existing Labour Legislation.

The Factories Act does not apply to mica factories because no power is used. At present, there is no law whatsoever regulating labour in mica manufacturing, excepting, of course, the Employment of Children Act, 1938, as amended in 1939. Little respect, however, is accorded to this and there is wholesale non-observance of the provisions of the Act. The Provincial Government also have done nothing so far to enforce it. Large numbers of children below 12 years of age are being employed throughout the area. Further, operations carried on in a house by the occupier with the aid of his family only and without the employment of hired labour (in other words domestic manufacture of mica) have been exempted from the operation of the Act. Nor is the Payment of Wages Act operative in any part of the industry with the result that illegal deductions like *Dharmadan* and *Goshala* are made with impunity.

Accidents and Occupational Diseases.

There is hardly any possibility of accidents occurring in mica factories. Machinery—the cause of most accidents, is not used at all. No cases of occupational disease have been noticed. Only in the screening department some cases of bronchitis were detected. The causes of this disease might be inhalation of mica dust thrown up in the process of screening.

Wages and earnings.

Round about Kodarma, Domchanch and Giridih in Bihar, a large skilled labour force has been built up. In times of peak employment, about 25 to 30 thousand workers find work in mica factories. However,

a considerable unemployed margin is always available. This fact accounts for the low wages in mica factories from the absolute point of view. The employment of child labour in large numbers has further aggravated the situation by substituting adults. It is the comparative scarcity of skilled labour in other industries that keeps wages high. The skill of the mica factory worker has become so common that it has lost its power to push up wages. It is for these reasons that the wage level in the mica manufacturing industry is amongst the lowest in the country. Figures for basic wages have been given in detail in Appendix II. From the absolute standpoint, the wage level is very much lower in the factory section than in the mining section of the industry. From figures collected, it appears that the rise in the basic wages has been very small, between 15 and 25 per cent., but in several concerns dearness allowance is being paid at varying rates, ranging between 10 and 30 per cent. The All India Trade Union Congress state, in a recent report on Mica, that on the manufacturing side, wage-rates have gone up by about 66 per cent. since the war began ; the data, however, are not conclusive and the A.I.T.U.C., figures are not clear as to the main question whether the wage-rates are average rates (for all the factories or for a sampled number of factories) and whether they include dearness allowances. From figures collected by us, it appears that the rise in basic wage-rates has not been 66 per cent. but somewhere between 15 and 25 per cent. The principal point to be noted about the factory wages is not only that they are low in an absolute sense, but that there is a considerable extent of sweating especially of female and child labour, which is available at low rates of wages. As stated, some concerns are giving dearness allowances, F.F. Chrestien & Co. pay a D. A. of 30 per cent. in addition to wages. The Indian Mica Supply Co. pay D. A. at the rate of one day's wage on regular attendance for 6 *consecutive* days. Chatturam Horilram Ltd., pay D.A. at the rate of 2 annas in the Rupee, *i.e.*, at 12½ per cent.

The above facts apply to factory workers. As regards the home workers, wage seem to be almost stationary, between 2½ annas to 4 annas per seer. The payment is on a piece-wage basis, and mostly small-size mica blocks are sent for home splitting. Owing to the Joint Mica Mission's purchase policy, however, at present there is very little demand for this kind of splittings and this has greatly injured the domestic business everywhere. Another consequence of the rising costs of manufacture has been that to an increasing extent, child labour is being substituted for adult labour so as to reduce the wage costs. At a time when the cost of living has been shooting up by more than 100 or 150 per cent., the stationary level of wages must be causing a great hardship to workers.

How the excessive supply of factory labour effects the wage position is illustrated by the fact that simultaneously, with retrenchment in employment beginning in October, 1944, wage-cuts were also registered. Employment in mica factories began to dwindle from October 1944, because the quantity of mica available for processing could not provide employment to all the workers then employed. This is, perhaps, the only industry wherein, even during a period of soaring prices, wages have gone down. The situation is to be regretted in view of the already low wage-level obtaining in the industry. Wages, however, have been cut down very surreptitiously. Instead of announcing a general wage cut directly, workers are dismissed in large numbers and then re-employed on 30 per cent. lower wages either in the same or other factories. In almost all factories, the period of wage payment is one week and wages are paid two days after falling maintained. In others, *bahi* entries suffice. On the day of wage payment, workers stand in a queue and receive payment from the *Munim* or *Munshi*. Thumb impressions are not obtained and the paymaster's verdict is final in all cases

of dispute. Payment is started at 6-30 p.m. (*i.e.*, after the factory hours) and goes on up to 9 p.m. or thereabouts. Obviously this mode of wage payment causes a lot of inconvenience every week to workers who have to walk 4 or 5 miles to their homes after receiving wages. As in the mines, here also every worker is obliged to subscribe to the *Goshala* Fund at 3 pice every week. No other deductions from the wages of factory workers are made. Wages for domestic work are paid on a piece-rate basis and deductions are made if there is much margin between the weight of mica loaned and splitting received. Complaints were made by labour leaders that where wages were paid on a piece-rate basis, weights were manipulated to the disadvantage of the workers.

Employment.

Total employment in the mica factories has been variously estimated. At present about 20,000 workers are employed in the factories but this figure has to be considered in the light of what has been said above about the prevalence of unemployment in the industry. Peak figures were reached in June 1944, when employment in factories stood at about 25,000. A much larger number of workers are employed in the domestic sections of the industry. Estimates vary from 50,000 to 100,000, but the latter figure seems to be nearer the truth. A large number of these are children and women. The problem of employment of children has already been discussed in Chapter II. Women are employed in the factories as splitters, condenser-film makers and wrapper-makers. Women are regarded as expert in splitting. In the domestic section, over 80 per cent. of the work is done by them. Married women generally prefer to work at home in spare time. Inside the factories, women sit side by side with men. It is commonly admitted that this has led to considerable immorality. Further their economic independence has enabled them to take to drinking. Cases of venereal diseases are reported to be increasing at an alarming rate.

Recruitment.—The mica manufacturing industry has never faced shortage of labour. All workers are recruited at factory gates by sardars who are whole-time employees of the factories. They have charge of a group of workers and exercise general supervision. Not long ago they had the permission of the management to beat labour workers in cases of negligence or inefficiency. Recently, however, things have improved, and it is only the manager who occasionally slaps a worker here or register a couple of blows there. The *sardar* even now has undue influence over the workers, more so these days when it is only through his benign agency that employment can either be obtained or retained. Classification of workers as permanent and temporary is not made in factories. All workers are daily wage earners and there are no benefits which accrue to any particular category of workers. Nor is any notice given for the termination of services.

Labour Turnover.—The labour turnover in mica factories has always been considerable but in the course of the present war it has further increased. In the first four years of war, employment in every factory went on rising month by month. Having no particular affiliations with the concerns employing and no stake in continuous employment, workers behaved like all casual labour does and went from one concern to another for a mere change, if not for better wages. At present, however, the boot is on the other leg and employers are themselves dismissing a large number of workers and employing a few fresh ones on lower wages. Labour turnover, therefore, has increased immensely since the middle of 1944. F. F. Chrestien & Company gave figures of labour turnover which work out at 2.86 per cent. This was true of 1943. Now, however, the figure has gone up much higher. In the Indian Mica Supply Company of Giridih the figure for 1943 was 17.5 per cent. In December 1944, it had shot up to 33 per cent. A number of concerns have had to dismiss as many as 500 workers in the course of

one month, or to close down altogether. The seasonal migration of mica factory workers to agriculture is on a small scale and it does not affect *seriously* the supply of labour for employment in factories. In fact, it has been noticed in recent years that mica factory workers have given preference to factory work as against agriculture when both types of employment are available. This is unfortunate in view of the fact that earnings of factory workers are too low to provide even the basic needs of men used to a low standard of living. Probably the sedentary nature of work in mica factories has something to do with the workers' indifference to agriculture. However, employers still continue to maintain that factory workers are essentially agriculturists and regard factory works as only secondary.

Absenteeism.—Despite the light nature of work, labour in mica factories is almost addicted to absenting itself for a number of days in the course of month. The incidence of sickness in Kodarma or Giridih, where most of the factories are situated, is no higher than what is in any other industrial town of the province and yet one finds that absenteeism among mica factory workers is disquietingly high. F. F. Chrestein and Company say that absenteeism is about 25 per cent. in their factories. Absenteeism is due largely to the drinking habit and increases to 33 per cent. and more on a day or two following the pay day. Drinking on a family scale is fairly common and even women and children have taken to it. The other important cause of absenteeism is sickness. Out of 2,918 cases treated in 1943 in the Chatturam Horilram Hospital in Jhumri-Talaiya, as many as 1,362 were for malaria. And though malaria accounts for over 46 per cent. of the total number of cases, no anti-malarial preventive measures are taken. It is clear that absenteeism can be reduced substantially, only if prohibition is enforced in the area and anti-malarial measures taken.

Since labour is regarded as casual for all practical purposes, the question of giving incremental or graded promotions does not arise. Even for the permanent technical staff, no concern except the F. F. Chrestein and Company has any " system " of promotions. Discretionary promotions are, however, granted to superior staff in other concerns by the management. There is no well-defined system of apprenticeship, but in all factories children of tender ages are employed to handle the most inferior quality of mica. In course of time they learn sorting and sickle-dressing and are promoted to better jobs if found fit. Training is given in splitting also. As they grow up, girls are sent to the splitting department and boys to sorting and dressing departments. Every year, some mica is wasted in training up workers, but the loss is inevitable.

Holidays with pay are not granted to daily wage earners, except in F. F. Chrestien and Company's factories, where a three-day holiday with pay is granted every year to all workers. Permanent employees of the same firm are allowed 40 days' leave with pay on completion of 12 months' satisfactory service ; sick and casual leave is also granted at the discretion of the management. Fines are not imposed and no Fines Fund is, therefore, in existence anywhere.

Working Conditions.

In mica factories only one shift of about 10 hours' duration is worked, most of them commencing work at 8.30 a.m. and closing at 6.30 p.m., with one hour's recess between 1 and 2 p.m. Only in cases of emergency like meeting an urgent demand from the Joint Mica Mission do some of the factories work beyond the scheduled time and even at night. Children and women are not allowed to work till late in the evening. Sunday is observed as an unpaid holiday for all the workers, except when a festival falls during the week, when Sunday is worked in lieu of the festival day. This arrangement suits the daily paid worker well, for he would not like to lose two days'

wages within one week. The bigger manufacturing concerns—like F. F. Chrestien and Company, Chatturam Horilram Ltd., the Indian Mica Supply Co., Ltd., have built commodious halls and sheds for the splitting work. Separate apartments are allotted to each section of the manufacturing industry. Workers sit either on gunny bags or on wooden boxes. To facilitate work, a sickle is fixed to the wooden box on which the sickle-dresser sits. Separate seating arrangements for men and women have not been made and, as has been said earlier, this has led to undesirable consequences. Lighting and ventilation arrangements inside the factories are very satisfactory and even sanitary privies for men and women separately have been provided. The use of latrines and bathrooms in the factory is optional in all factories except one and workers are allowed to go out of the factory to answer calls of nature, if they so desire. It was alleged by an employer that on pretence of going out for this, some of his workers went to a neighbouring house and worked for an hour or so and got an anna as wages. In any case, workers prefer to go out into the open for it gives them respite and relaxation. Working conditions in smaller factories, are much too inferior to stand any comparison with the conditions in bigger establishments. The small manufacturer sets apart a couple of rooms and or a verandah for workers, and this part of the house is not always well lighted or ventilated. Too many workers are packed together in one room and not even 12 sq. feet are available to each one of them. Besides overcrowding, sanitary arrangements are also very poor. In most places no urinal or latrine accommodation is provided and workers have to go to the by-lanes in the neighbourhood.

Housing and Welfare Activities.

Mica factory labour in Bihar recruited either locally from the town or from the neighbouring villages. A large number of workers.—men, women and children,—have to come from four to six miles but there is no alternative, as no establishment has yet thought of providing housing accommodation to its employees. In Kodarma and Giridih,—the two main centres of mica manufacturing industry,—workers stay in hired lodgings, paying one or two rupees per month as rent. Overcrowding and bad sanitation are common features of the workers' private quarters. Food is cooked only once a day and evenings are kept free for visits to cinema shows, roulettes and such other places. There are no shelters in mica factories and hence workers go out of the premises during rest hours to take their meals. This is not very serious in view of the fact that working conditions, in the bigger factories at any rate, are satisfactory. Creches, canteens, grain shops and other measures of welfare were not found in any factory. Some time back, F. F. Chrestien and Company and Chatturam Horilram Ltd. had grain shops on their premises, but now they have been closed down as regular supplies of grains were not available to the concerns themselves. Arrangements for drinking water were too leave much to be desired. Pitchers in which water is stored are not cleaned periodically. In summer no special arrangements for providing cool water are made except that earthen pitchers keep the temperature of water from going too high. As for education of the children of employees, the bigger establishments contribute towards the cost of maintaining a few primary schools. However, since children easily find employment in factories, their parents do not bother to send them to schools.

Indebtedness.

A large number of Pathans and Kabulis have infiltrated in Kodarma and Giridih and the entire industrial population of the two areas serves as very profitable field for their exploitation. Given as they are to vices willing as the *Kabuli* like drinking and gambling, workers have often to borrow and there is none so to make a small advance. This should not, however, mini-

mise the significance of another serious cause of indebtedness,—low wages. But the *Kabulis* and *Pathans* are not the only menace for the workers. Some of the leading firms, it was stated, had a separate department for lending money to their own employees at exorbitant rates of interest. Four annas per month per rupee (*i.e.*, more than 300 per cent.) would not be regarded as unconscionable or even high. The *Kabulis* have a wide and expanding clientele and trap many an innocent worker by pretending to be more humane. They insist only on the payment of interest and discourage the repayment of capital. In the course of one year, they are able to extract by way of interest at least twice their initial outlay. On the pay day, they suddenly appear from nowhere and loiter about the gates of factories. After collecting a good bag in the evening, they leave for " fresh woods and pastures new " in the surrounding areas.

Domestic Section.

By far the most important section of the mica processing industry is the domestic manufacture of mica splittings ; for till lately these mica splittings constituted the bulk of exports of mica manufactures from India. The structure of the domestic section of the industry is, however, entirely different, from that of the factories. Mica splittings are manufactured only from the smaller size S.D.B. mica, generally No. 6 and below, which, if sold as Blocks, would not fetch sufficiently profitable prices. Trade in splittings, however, has been very profitable because of the availability of an excessively large number of domestic manufacturers in the districts of Gaya and Hazaribagh, who are prepared to give a part, often a substantial part, of the day to such work. To assemble a lakh of persons,—the number at present employed in this section,—inside factories would have been a task impossible of achievement. Nor would the workers have liked to leave their homes and go long distances for working in factories for the wages which they get now. A contractor class has sprung up to serve as liaison between the factory-owners spread throughout the two districts. Most factories have a separate section to deal with the contractors and the latter's employees. The better organised firms have a network of distributing centres in the two districts and it is from these centres that mica is loaned to contractors or their employees.

Smaller size S.D.B. mica is loaned either to the contractors directly or to workers introduced by them to the factories. Registers showing the dates and quantities of mica loaned are maintained. Every week on a fixed day the contractor visits the factory or the distributing centres, returns splittings and borrows more mica. Contractors are paid at the rate of 0-2-6 to 0-3-6 per seer of splittings returned to the factories. A slight margin between the weights of mica loaned and splittings given back is excused, but deductions are made for wide discrepancies. The contractor, on his part, distributes mica among a large number of home-workers and records of such transactions are maintained by him. The worker is too ignorant and illiterate to be able either to check the records of the contractor or to maintain separate records for himself. It is here that the worker is cheated. It was stated that the weights and measures of the contractors are always manipulated to the disadvantage of the workers and when it is remembered that nearly 80 per cent of home-splitters are women, the allegations became convincing.

The earnings of home-splitters merely supplement their income from agriculture but this cannot excuse the payment of so miserably low wages to them. The Bihar Labour Enquiry Committee stated in their Report[1] that the average earnings of home-workers per *month* varied from annas 15 to Rs. 1-9-6. That was in 1939 and the position does not seem to have improved since then. Piece-rates for splittings have remained stationary, *viz.*, at 0-2-6 to 0-3-6 per seer, for the last seven or eight years, and contractors cannot be expected to

[1] Vide *Report*, P. 235.

have raised the wages paid to their employees. It was stated that contractors are actually paying wages at about 0-1-9 per seer of splitting. On an average, by working for about three hours, half a seer of splittings is produced by one worker, and this gives him an average monthly earning of Rs. 1-10-3. Of course, some of the workers may be doing much better, but unfortunately they constitute only a negligible minority. Further, the statement that splitting work is only a by-employment has to be taken with some reserve. A large number of young girls after marriage prefer to work whole-time at home rather than go to factories. Besides, only in sowing and harvesting period do women engage themselves in agricultural pursuits also, but for the rest of the year they devote a considerable part of the day to splitting work. Women are assisted in their work by children. If the nearest factory is too far away from the village, the mother does not like to send her children there. Instead she trains them up in splitting work and they help to augment the earnings of the family. The *per capita* income of children is seldom more than Re. 1 per *month*, if they work at home. It is for this reason that in their case, preference is given by their parents to factory employment.

Trade Unions.

There are some inherent difficulties in the formation and successful operation of trade unions in the mining section of the industry. Mica mines are spread over a forest area and there is hardly any contact between the workers in one mine and another. At the end of the day's work all workers, barring, of course, a few that stay at the times, go back to their village homes. Apart from this, there is 100 per cent. illiteracy among the miners and consequently they have not been able to throw up from their ranks even one man so far with the capacity to organise a union. Outsiders would probably had given a lead but obviously they too were doubtful of achieving the impossible task of organising the mica mine workers under a union. Finally, the wages of the workers are so low that one cannot legitimately expect them to contribute towards a union fund. It is because of these and other difficulties that no trade union has so far been formed among the workers in mica mines. Conditions, however, are different in the case of factory workers who have better contact amongst themselves and live in large numbers in the towns of Kodarma and Giridih. In their case, it has been possible to organise meetings and to carry on propaganda. It seems that in 1938 two or three unions were formed in Jhumri-Telaiya and Giridih, but after a brief existence they were dissolved. There is at present one mica mazdoor Union in Giridih which claims a membership of over 3,000. The monthly subscription of the union is 1 anna. Though the union has been in existence for a number of years now, it has not taken upon itself, so far the onerous task of organising welfare measures for its members. It may be pointed out here that there is also a Colliery Workers Union in Giridih and that there is interpenetration of personnel between the executive bodies of the two unions. The Mica Mazdoor Union, however, receives somewhat indifferent treatment from the union leaders. Despite the existence of a union, mica factory workers have not been able to force an increase in wages. This is primarily due to the availability of a large margin of unemployed workers in the town itself but it may also be that the organisation of the union is weak and that it cannot conduct a strike successfully. As for the domestic manufacturers, there seems to be no possibility in the near or distant future of the emergence of a union amongst them.

CHAPTER IV.—MADRAS.

The mica mining and splitting industry in Madras is located in the Nellore District. The mining tract in the Nellore District falls within a belt striking NNW-SSE for some 60 miles between latitudes 14 and 15 and with a

[1] Dunn, *Mica*, p. 39.

width of 8-10 miles east and west[1]. According to Dr. Ghosh, the lens-shaped central portion of the belt, which runs roughly north and south is widest in the southern and eastern portions of the Rapur taluka, carries most of the mica mines (including the most paying ones) of the District[1]. Mica of this belt is characteristically green in colour, though at some places reddish coloured mica, like the ruby mica of Bihar, is also found. The belt is bound by three ranges, *viz.*, Nellore Gudur and Talipur, and the important mining centres are Gudur, Raipur, Podalakur, Atmakur and Kavali. The mining area proper is about a 1,000 square miles, most of which is unfertile, rocky in soil, and covered by shrub-by jungle. A few important mica-mines, e.g., Shaw and Thellabodu are located on hillocks. This area is not served by any good means of communication and a road expected to touch most of the important mines has not yet been constructed, though one was projected long ago. The overwhelming majority of the population of this area have to live mainly on occupations connected with mica, as there are no other industries and agricultural employment is available only to a very limited extent. In the entire belt, there are about 200 mines and *uparchallas* employing about 12,000 to 15,000 men for underground and surface work.

MICA MINES

Mica mining and manufacture have been in existence in this district for nearly 50 to 60 years. But the industry has not been organized or developed on sound and scientific lines, due to the fact that a large number of individual miners and dealers have been engaged in the industry on a somewhat speculative basis. A few people have made enormous fortunes in mica mining and trade, but several others have lost heavily and given up the work. So the industry continues to be managed as a speculative proposition by a number of people who have neither the resources nor the abilities necessary for scientific organisation. As a consequence, the industry suffers in production, in the standards maintained as well as in the very low-level of labour conditions prevalent. People undertake prospecting and mining with very inadequate resources and without proper technical advice, give up the business as soon as they are exhausted and the mine passes into the hands of some other individual. The tendency to increase the number of mines is accentuated by the attempt to evade the Excess Profits Tax by distributing the output of a well-yielding mine over a number showing a small volume of profits in each concern. The result is that out of the 200 to 250 mines which are nominally existent, only some 20 mines are well-established and productive. Owing to these peculiar factors, employment of labour is very unstable, wages are low, and no steps are taken for providing welfare amenities to workers. The Nellore mica is characteristically green in colour and sometimes heavily spotted and this is inferior to the Ruby Mica which is more predominant in Bihar. On the other hand, the splitting industry is probably more well developed in Gudur than in Bihar. For administrative purposes, the mines are under the control of the Indian Mines Department and the Revenue department, the latter being mainly entrusted with the work of collecting a royalty of 5 per cent. on the sale value of mica at the pit's mouth. For this, there is a Mica Inspector under the District Collector at Nellore assisted by three Assistant Mica Inspectors, one for each range. It is quite obvious that this inspecting staff is totally inadequate for exercising any control over the mines. Even the work of valuing mica according to grades and collecting the royalty is far too heavy for the staff. They are therefore, naturally unable to attend to anything connected with other aspects of mica mining like labour conditions. The other agencies connected with the mines are the Health Department, inspecting the conditions of sanitation at the mines and the Police Department control-

[1]Quoted, N. L. Sharma and S. Datta in "Mica in India", *Journal of Scientific and Industrial Research*, p. 28.

ling the use of the explosives. It is thus apparent that the work of inspecting and regulating mining activity is diffused over different uncoordinated agencies, none of which are interested in the welfare of labour.

Processes and Occupations.

(A) *Underground.*—The miners and jumper coolies are engaged in drilling holes with a jumper and hammer. They work together in batches and each batch consists of three persons, of whom one holds the jumper and the other two strike with the hammer. Each batch has to make nine holes in every shift of work at a particular work-spot as directed by the Head Mistry, who is guided by the direction of the vein. In some big mines, the use of the air compression system enables miners to drill a larger number of holes in a shift, but generally speaking, the use of such labour-saving devices is not well-known to all the miners, and they cannot afford to make use of them in mines which are still in a prospecting stage. After drilling holes, these miners put the dynamites in the holes and later close the holes with earth, and they come away from the underground to the surface. Then the blasting mistry goes into the mine and lights up the fuses which are adjusted in length to vary according to time. After firing the dynamite, the blaster goes into a different tunnel in the mine for protection and counts the reports. After all the reports are heard, the blaster comes up to the surface. If one or more reports are not heard, the blaster waits for about half an hour and then goes to the work-spot to remove the unexploded charge with an iron instrument called *chalaki* and brings it to the surface. A certain amount of muck would have fallen to the ground and some part of the sides would have been loosened. The loosened part is removed with a crowbar and hammer and it falls to the ground. For this purpose, a separate category of workers are engaged underground and they separate the mica which is found in the shape of books from stone, earth, etc., and remove the mica books to another place. All the accumulated mica and earth is removed before drilling and blasting again takes place in the second shift of work. All the muck, as well as the mica, is taken to the surface in the case of big mines by a system of trucks, operated by a steel rope pulled by steam engines, and in the case of other mines, by coolies who are known as muck-removers. It is only in two or three mines that the truck system is being worked, and in all other mines, it is the coolies, belonging to both sexes, that stand in a row and carry the muck etc., from one head to another. When trucks are used, mica is removed from the trucks to the shed, and muck is taken to a pit where debris is thrown. When the mine is deep, and not open, water oozes at the actual work-spot in the mine underground, and coolies are engaged to remove water in different parts of the tunnels to tanks constructed in certain places in the mine, wherefrom water is pumped out by a pumping machine. If for any reason, an excessive amount of water accumulates, as it does accumulate in the rainy season and a tunnel gets water-logged, then water is removed into tanks by a special staff of coolies who will be engaged for the purpose.

(B) *Surface.*—Besides these workers who work underground, there is another type of workers working at the engine, boiler etc., for example, driver, fireman, oilman, furnaceman and carpenter, who work in the different engine sheds, which supply electricity to the mine, pump out water from the mine underground, or work the air-compressor. They are all concerned with the work of the Engines which are installed in the mine premises.

(C) *Factory at the Surface.*—The crude mica is brought to the surface of the mine, and is removed to the cutting sheds by Mica carriers. Then that raw mica (found in the shape of books) is distributed to cutters who cut it with a sickle, and cut mica is given to dressers who dress it, and later the dressed mica is sorted into different sizes. The sorted mica is weighed by the clerical staff of the establishment, and packing is done by some of the above

workers themselves. Some mica is left as waste in cutting the block mica, and this waste mica is given to women workers for being cut into rounds with scissors. These workers are known as Round Cutters. These rounds are dressed and later sorted. The waste that is left after cutting stain-rounds is given over to contractors, who employ women and children to cut further rounds out of it. These waste rounds are also dressed and duly weighed and packed. In short, the work that is done at the Factory consists of cutting, dressing, sorting, weighing and packing mica of different forms, namely, crude mica, waste mica, waste rounds and films.

Distribution of Mines and Employment.

As is already pointed above, all the mica mines are, for the sake of administrative convenience grouped into three ranges and the distribution of these mines in the three ranges is as follows. The mines are classified as mining leases, *patta* lands, prospecting plots, and non-royalty or *shrotriam lands*. The last type of mine do not pay any royalty and they are exempted by the Government from any such payment.

TABLE 8.

Distribution of Mines in Three Ranges.

Year.	Mining leases.	Patta Lands.	Prospecting Plots.	Non-Royalty.
NELLORE RANGE.				
1938	16	13	7	..
1939	16	10	3	..
1940	13	5	2	..
1941	10	2	1	..
1942	16	10	3	..
1943	19	18	45	4
GUDUR RANGE.				
1938	17	14	5	5
1939	15	15	1	5
1940	19	15	3	9
1941	22	11	..	..
1942	16	15	1	6
1943	21	24	7	1
TALIPUR RANGE.				
1938	19	22	4	..
1939	29	28	..	1
1940	22	24	..	2
1941	15	17	3	5
1942	29	28	..	..
1943	27	21	8	..

(In 1943, the total number of mines in all the three ranges was 195.)

Thus there are roughly 200 mines, out of which 60 are in a prospecting stage. All the mines are not at present working, either owing to lack of resources in the hands of the mine-owners, or lack of labour supply, or some litigation that is going on regarding encroachment or boundary disputes, or the difficulty that the mine-pits are water-logged.

Nineteen mines were investigated, and out of an approximate total number of 12,000 men, employed in the mines in the district, these 19 mines employed nearabout a total of 4,000 labourers. The following table shows the total number of workers in these mines, and their distribution according to sex, and different systems of wage payment that are prevalent in the mines.

TABLE 9.

Number of Workers in the Mines investigated.

Mine.	Piece-rate.	Time-rate.	Total.	Paid directly.			Paid by contractors.
				Men.	Women.	Children.	Men, Women & Children.
1	600	252	852	252	100	..	500
2	38	76	114	68	8	..	38
3	..	84	84	83	1	..	..
4	..	62	26	62	..	..	..
5	35	131	166	131	35*	..	35*
6	..	491	471	274	197	..	..
7	..	103	103	45	518	..	..
8	..	61	61	40	16	5	..
9	..	37	37	31	6	..	..
10	24	93	117	73	41	3	..
11	73	309	382	238	144	..	..
12	109	610	719	320	372	27	..
13	15	178	193	118	75	..	..
14	49	87	136	32	104	..	20*
15	..	80	80	52	28	..	..
16	..	43	43	38	5	..	..
17	..	131	131	131	..	..	..
18	60	228	288	118	170	..	..
19	..	298	298	160	138	..	..

* These workers are paid partly directly and partly by contractors.

Most of the women employed are engaged mainly in the splitting at the surface, and are paid piece-rate wages, though some of them also work as muck-removers, receiving a time-rate wage for such work. The employment of children is not infrequent, and they are mainly engaged as cutters and are to be seen on the huge waste heaps that lie at some distance from the mine premises. It is also found that except in two mines, all workers are paid directly by the employer, and contractors are employed mainly on truck work, if the mine has got a truck system, and also for cutting waste rounds. Such workers as are engaged by the contractors have no attendance register, and they do not come under the total employment figures in the mine. From time to time, some contractors are asked to undertake such work as is purely of a temporary character.

Length of service of workers.—All these workers can be classified as temporary. Only the clerical staff, the *mistries* and others that are paid monthly wages may be treated as permanent. Whether the mine works or not, the latter group of workers stay on and they are paid their monthly salary. Most of the mica mines may be said to be seasonal and not perennial. During harvest season, there is an acute dearth of labour and no mining operations take place in most of the mines. The mining labour takes a long holiday for the *Sankranti* festival for a period of two weeks, when most of the mines are practically closed. Again, in the rainy season, when most of the mine-pits are full of water, unless there is a regular and efficient means of pumping out water, the mines cannot work. But the miners and jumper coolies are overworked (during night shifts) especially in December, just before the *Sankranti* festival. Thus, it may be said that it is only for about 8 to 9 months that a mine works on the average in a year, and owing to this seasonal nature of employment, workers are not permanently staying in one mine. There are also no service registers maintained in any of the mine, and it is very difficult to

find out the exact length of service of the operatives in each mine. But the general tendency appears to be that in long-standing and well-established mines, a majority of the miners have had more than 10 years' service to their credit, while most of the cutters and sorters have service of 5 to 10 years. In all other mines, which are in a prospecting stage, or when the employer is not steady in his enterprise, the workers are having less than 1 year's service, even though the mine might be working for years. Another broad feature is that the " resident " coolies, i.e., those who are provided with lodging at the mine, have more service than " non-resident " coolies who daily come for work and return to their homes after the work is over.

Labour Turnover.—The fact that the average length of service of the mining workers is low is also reflected in the high labour turnover in mines. Those who leave the mines from time to time do so of their own accord, and due to any dismissal by the employer, for dismissal very rarely takes place. There may be some reasons which give occasion for the employer to dismiss the workers, but, since it has its bad repercussions especially at a time when labour is scarce in this mining area, the employer does not venture to dismiss a worker unless his behaviour is very provoking to the employer. Sometimes it may happen that the miner answers the roll-call in the morning at the time of the commencement of the work and steals away and returns at the time of the second roll-call in the evening ; or some workers may commit some theft ; or the miner goes underground and sleeps in a corner ; or he may not dig the hole to the required depth. The following table shows the extent of labour turnover that took place in one calendar month in some of the mines.

TABLE 10.

Labour Turnover in Mines.

Mine No.	Average daily number of workers.	Those who left in one month.	Percentage of Labour Turnover.
1	409	25	6·2
3	129	13	1·0
4	52	1	1·9
5	106	10	9·4
8	61	3	4·9
10	117	30	25·6
11	382	10	2·7
13	193	1	..
14	136	13	9·5
15	80	5	6·2
16	43	2	4·6
17	131	1	..
18	288	28	9·7

Amongst these mine workers, labour turnover may be said to be lower among factory workers at the surface than among miners and jumper coolies who work underground. There are many reasons for such labour turnover in mica mines. Firstly, it might be that a difference in wage-rate, irrespective of the difference in the nature and conditions of work may attract some labourers to leave one mine and join another. The conditions of ventilation differ from one mine to another, and if conditions are better in one mine, workers naturally prefer work there to work at other mines. The rock in one mine may be fissile and the miners like to work there better than in mine where the rock is hard and compact, especially owing to the reason that the drillers have to make the same number of holes in a limited period of time at every mine.

Similarly, the working conditions may not be strict at one mine and this fact may also attract labourers. So far as the factory workers are concerned, there is a tendency to leave a mine when an opportunity arises, where the quality of mica is not good, and where piracy is not possible or does not pay much and join another where the quality of mica is superior and piracy is not easily detected by the manager of the mine. Labour turnover may be said to be higher in harvest season, when labour is scarce, and the *mistry* of one mine more or less bids against another in offering more wages and advances to workers, according to the need for labour. On the other hand, it may be said that labour is sticky and labour turnover is less before and after the time of the *Pongal* festival (in the month of January) especially in mines which are prosperous and where bonus is paid. The employer usually takes this opportunity to postpone giving the bonus as far as possible with a view to retaining the labourers for some time. Especially if the bonus is paid in kind and not in coin, the labourers stay on without changing their mine, since presentation in kind may not allow discrimination with regard to the workers' service or experience or regularity in attendance etc., and all can expect the same reward. Workers may also leave one mine and join another simply with a view to evade paying back the amount of advance that is usually given to the workers at the time of their joining in one mine and also to get a fresh advance elsewhere in another mine. The war conditions have not in any way altered the degree of labour turnover in these mines, though it is to be found that in A13, one labourer, who has left the mine has joined the military service.

Absenteeism.—This tendency of rapid turnover of labour is coupled with the high degree of absenteeism that is prevalent among workers in these mines. It was alleged by the Mica Workers' Union that absenteeism is rare in these mines, but, on the contrary, the figures show a high percentage of absenteeism in these mines. The following table gives an approximate idea of the percentage of absenteeism among workers.

TABLE 11.

Percentage of Absenteeism.

Mine No.	Percentage of absenteeism.
1	42·7
2	21·2
3	44·5
4	41·0
5	26·6
6	60·0
7	42·0
8	60·0
9	60·0
10	9·0
11	49·0
12	5·0
13	39·0
14	50·0
15	3·1
16	44·0
17	27·0
18	49·0
19	11·7

It is alleged by the employers that absenteeism is high among workers since they are paid high wages, and they put forward the plea that a reduction of wages leads to a lower percentage of absenteeism. But there are other reasons which are more important in accounting for such a high degree of

absenteeism among the workers. Broadly speaking, absenteeism is much greater just after pay days, i.e., on Mondays and Tuesdays (wages are paid on Saturday and Sunday) ; whereas attendance is full on a pay day. The workers are addicted to drink and when they take the weekly advance from the manager, they straightaway go to the neighbouring villages where there are grainshops, buy some provisions for the week, and on the very next day enter the liquor shop. After this they take a complete holiday for one or two days and spend the time in a drunken state. The workers' union represents that especially in some months, when the same workers are asked to work both day and night, they cannot stand the strain of continuous work throughout the week and naturally try to be content with their lot, taking rest for a day or two. Secondly, all workers own a small bit of dry land and are engaged in field work for some days in the month, and this leads to higher absenteeism especially during harvest season and at the time of transplantation. Thirdly, absenteeism is greater among non-resident coolies, in the rainy season, when they do not go to work all the way to the mine from the villages. Lastly, superstition and illiteracy among workers are also responsible for such frequent irregularity in their attendance. If there is any epidemic like cholera or smallpox at the mine or in a village situated on their way to the mine, workers do not pass through that way till the fear of the epidemic is wiped out. Similarly, if any accident occurs in one mine, workers absent till they make themselves sure that such accidents do not recur.

It is only big mine owners that are able to provide for this absenteeism by keeping more workers on roll than the number actually required for their day's work. The small mines cannot afford to do the same, since if all workers happen to attend on one day, the extra labour force has to be rejected by the manager.

Shortage of Labour.—Owing to the above reasons, there arises the acute problem of dearth of labour force throughout the year except in the months of November and December. There was a time when supply of labour was sufficient up to the year 1941. But scarcity of labour is felt since 1942, and drillers for underground work, as well as skilled labour for cutting and sorting mica have not been easily available. This dearth of skilled labour in regular mining operations might be due to the increase in the number of mines. The prospects of the mica industry are very bright at present and applications for fresh concessions are pouring in large numbers, while abandoned plots are being reopened. Labour scarcity is much more felt at old mines which are very deep than at new and prospecting mines where work is easier. This dearth of labour is partly regular and partly sudden. Especially in harvest season (during March and April), or during the festival time at Kalichedu village (in August) or at the time of *Sankranti* (in January), there is a regular shortage of labour. But the irregularity in the supply of labour can be counteracted only when the use of labour-saving devices is known to these mine-owners. It is rather unfortunate that not more than two or three mines are using a device to blow in compressed air whereby drilling and blasting are rendered easier.

Recruitment of Labour.—Whenever labour scarcity is felt, it is the practice of the manager of the mine to send the *mistry* to neighbouring villages who tries to recruit as many workers as possible by tempting them with all kinds of offers, like advances, bonuses, and easy conditions of work. Such method of recruitment simply draws away labour from one mine to another, leaving the present-day problem of the scarcity of labour unsolved.

Wages and Earnings.

The principal occupations in mining, apart from the clerical and the supervisory posts may be classified under three heads.—Underground workers, Surface workers, and Factory workers. Both the

Underground and Surface coolies are paid according to time-rate, while the Factory workers are mostly paid according to a system of piece-rate. It is only in some cases, that some of the piece-rate workers are not paid directly, but through contractors. But, on the whole, it may be said that all wage payments are made directly by the employer and not by any middleman or contractor. Only in two out of the nineteen mines investigated, some of the labourers are paid through the contractors.

The table given below shows the wage position of workers belonging to the principal occupations. It is difficult to vouchsafe the reliability of figures collected regarding wages and number of persons employed in each mine, since the mine-owners manage to keep *two* or at times *even three books of attendance* registers, each book being meant to serve its own purpose. There is a tendency to falsify and fudge the accounts especially with a view to evading the Income-tax and the Excess Profits Tax. So in most of the big mines, the position regarding the number of persons employed and the wages paid to them is often exaggerated just to show that expenditure on labour has been very abnormal. In spite of all such possibilities, information regarding wages is collected from the *Batwada* books (i.e., the actual payment books) and except in one or two cases, the figures are not likely to be incorrect. The wage position seems to have definitely improved, when the pre-war and present conditions are compared. The wages of blasting mistries have increased from pre-war average of about -|8|- to an average of Re. 1 per day at present. The wages of mines (jumpers and drillers) have risen from about -|6|- per day to an average of -|13|6 per day ; the wages of male coolies and female coolies from -|5|- and -|4|- to -|9|6 and -|8| respectively. Graders, sorters and dressers, who were getting about -|5|- per day, get on an average -|8|- per day at present.

TABLE 12.

Average daily Wages of Workers in Mica Mines.

Mine No.	Underground.		Surface.		Factory.	
	Blasting Mistries.	Jumpers and Drillers.	Male coolies.	Female coolies.	Graders, sorters and dressers.	Round cutters.
						per lb.
1 ..	1 3 0	0 15 0	0 9 0	0 7 0	0 8 9	0 0 9
2 ..	1 0 0	0 12 0	0 8 6	..	0 8 6	0 0 6
3 ..	1 3 0	1 0 0	0 8 6	0 7 0	..	..
4 ..	0 14 0	0 13 0	0 11 8	0 8 0	..	..
5 ..	0 15 0	0 12 10	0 10 9	0 8 0	0 9 0	0 0 9
6 ..	1 2 0	1 0 6	0 10 0	0 6 9	0 6 3	..
7 ..	0 12 3	0 11 6	0 7 0	0 6 9	0 7 6	..
8 ..	1 0 0	0 12 0	0 9 0	0 7 9	..	..
9 ..	0 13 4	0 13 0	0 12 0	..	0 8 9	..
10 ..	0 13 4	0 12 9	0 9 0	0 8 0	0 8 0	0 2 6
11 ..	1 0 0	0 15 3	0 10 0	0 8 9	0 7 0	0 2 0
12 ..	0 15 6	0 11 0	0 8 9	0 7 9	0 6 0	0 0 9
13 ..	0 12 6	0 9 0	0 7 0	..	0 8 0	0 1 0
14 ..	0 13 6	0 12 6	0 10 0	0 8 0	0 9 0	0 0 6
15 ..	0 13 4	0 12 0	0 7 6	0 6 9	0 7 3	..
16 ..	..	1 0 0	0 9 0	..	0 8 0	..
17 ..	..	1 0 9	0 9 0	..	..	..
18 ..	0 13 0	0 11 0	0 9 9	0 8 3	0 6 6	0 0 6
19 ..	2 0 0	1 6 0	1 0 0	0 15 6	0 14 0	..
Average for all these mines	0 15 11	0 13 7	0 9 6	0 8 1	0 8 2	..

TABLE 13.

Maximum and Minimum Monthly Income of Workers (In Rs.)

Mine No.	Driver.		Mistry. (Mica, Blasting, Mine)		Watchman.	
	Maxm.	Minm.	Maxm.	Minm.	Maxm.	Minm.
1	45	28	40	22	26	5
2	35	35	30	25	19	5
3	44	26	35	27	30	5
4	25½	20	..	..	4	4
5	27½	27	27½	25	3	..
6	90	40	30	30	18	5
7	..	..	25	22	6	6
8	30	..	30	30	4	4
9	65	30	25	..	..	..
10	70	30	26	20	..	..
11	27½	..	60	21	5	..
12	100	45	30½	16	13	12½
13	115	..	20	..	20	..
14	42½	17½	34	15	4	..
15	45	40	25	20	5	..
16	25	..	20	..	..	..
17	100	50	..	..	4	4
18	50	..	35	25	10	..
19	80	..	60	50	15	..

The wages paid to different workers in the same category differ from one person to another, according to physical strength, skill, experience, and in the case of cutters and sorters, the nature and quality of mica supplied to them also. Thus, for example, the piece-rate per pound for cutters and sorters varies generally from -|-|6 to -|3|- according to the quality of mica handled.

A comparison of the average daily incomes between 1939 and 1944 is made in the table below :—

TABLE 14.

Average Daily Income of Workers during 1939 *and* 1944.

Type of Worker.	1939.	1944.	Percentage Increase.
	Rs. A. P.	Rs. A. P.	Rs.
1. Blasting *mistries*	0 8 0	1 0 0	100
2. Drillers or Jumpers	0 6 0	0 13 6	125
3. Male coolies	0 5 0	0 9 6	90
4. Women coolies	0 4 0	0 8 0	100
5. Graders, sorters and dressers ..	0 5 0	0 8 0	60
6. Round cutters	0 0 3 per lb.	0 0 6 per lb.	50

It will be seen that the rise in incomes on the average is between 50 and 125 per cent. This is not commensurate with the rise in the cost of living in

these areas, especially in the prices of the chief necessities of life, which in many cases have risen by more than 100 or 150 per cent.

Bonus, Allowances, etc.—Besides these wage amounts, the day workers are not paid any kind of allowance. But the monthly paid staff get some lighting allowance and also war allowance in some mines. There is no time scale or graded promotion even for these workers. It is only in well-established mines that bonus is paid every year according to the profits of mine-owner, not to all workers, but only to workers who are paid directly by them, and not to those who are specially engaged by the contractors. Hitherto bonus was given in kind (clothes) ; but this year in two mines, in order to take into account the length of service of workers in mines, bonus was given in coin. Bonus is paid in one mine to the monthly staff to the extent of 2 or 3 months' salary every year. Here attendance is the criterion for deciding the amount of the award of the bonus. The monthly staff is allowed 15 days' casual leave and one month's sick leave in a year. If they do not absent on those days also, additional pay is given for this period. In another mine, the monthly staff is provided with kerosene, fuel and free water supply. But payment of bonus or allowance or any other gratuity is not common in mines which are still in a prospecting stage.

Periods of Wage Payment.—The workers are paid advances once in a week, either on a Sunday or most commonly on a Saturday. The wage account of each worker is finally settled by the end of the month and the final payment is made once in a month or in some cases once in two months. While paying weekly advances, the employer sometimes pays even more than the actual earnings for the week, depending on the mutual confidence and trust in the worker. When employees join the mine for the first time, every group takes some amount by way of advance, and these advances are gradually deducted from out of the wages every month, and a large portion of such advances have to be transferred to the " Bad Debts " account of the mine-owner, since some workers deliberately leave the mine without informing the manager, and join another mine. Practically, there is no other kind of deduction that is made from the wages. There is also no delay in making the payment and advance wages are regularly paid on every Saturday before they go on for a holiday on Sunday. Sometimes, when the employer himself is managing a grainshop near the mine, the wages are paid both in kind and cash which is left to the option of the worker. But, most of the grain shops that were managed hitherto are not at present functioning, and payment is in most cases made in cash only. Overtime work is most common in the month of December, and on many days, the same workers work both day and night in the mine underground, and overtime is said to be paid for at the rate of as. 1-1|2 per hour.

Shifts and Hours of Work.

Since some workers come from outside villages, work at the mines is commenced usually at 9 a.m. and it continues till 6 p.m. with one hour interval between 1 and 2 p.m. In this interval, the resident coolies go to their huts, and others go to the rest shelters, where they take their mid-day meal. There are dining sheds, with no special seating arrangements, and owing to differences in caste, there are in some mines more than one shed in the same place for the important castes among workers. Workers who come from outside come from a distance of 6 to 8 miles, and they start early in morning from their houses and return to their villages at about 9 or 10 p.m. in the night. In the absence of any transport facilities and also owing to the absence of a good road system, the workers have to walk all the way for about 5 or 6 hours every day and they naturally get exhausted after the day's work. In the mines, which are deep, the working hours amount to more than the prescribed limit set up by the Indian Mines Act, according to which *no*

person shall be engaged in a mine for more than 54 hours in a week consisting of not more than 6 days. The mines in this district vary in depth and the biggest mine is 1,400 ft. deep. It takes about 1|2 hour to go down the mine, and 1|4 hour to come up from the mine underground. Since the steps in the mines are not well laid throughout and owing to the ladder that is common in most of the mines, the workers have to go down step by step carefully and it normally takes at least about threefourths of an hour to go into and come out of a mine. The workers come quicker on return than when they go in, since they are anxious to go home soon. But the time that is taken for conducting the miners to the pit bottom and bringing them back again to the pit head is not usually reckoned as part of working hours. This is an infringement of the Mines Act, which definitely states : " All work of persons employed below ground shall be reckoned from the time such persons leave the surface of the mine to the time at which they finally return thereto at the end of the period of the employment." The engine staff works night and day, since underground water has to be pumped out. When work is carried on by night shift, the labourers work from 9 p.m. to 6 a.m. without any extra remuneration being paid.

Sanitation and Health.

The sanitary and health provisions of the Mines Act are also not properly observed in mines. The underground workings are fitted with electricity for lighting only in 4 or 5 mines, which are big enough to provide electricity underground and at workspots. Even in these mines, where electricity is arranged for the gangways, the workers are found working only with the help of candles and oil lights. Artificial air is sent underground only in a few cases. Since water is not pumped out as and when it oozes out, the underground workers are everywhere found working in water. There are no special provisions made for drinking water underground ; though water cisterns are arranged on the surface of the mine. Of course, water supply is a problem for all the mine-owners. It is stated that the difficulty is that no fresh water could be tapped by means of draw wells in the immediate vicinity of a mine in the majority of cases, owing to the nature of the soil. The present system is to get water from a distance and storing it in cisterns or tubs by engaging special coolies or bullock carts or lorries. Sometimes, water is obtained from abandoned mine pits. Draw wells or step wells yield only blackish water, and this causes infection of labour with Guineaworm during the summer months of the year. In most of the mines, at the surface, latrines are constructed but the enclosures for the latrines are made of palmyrah leaves or some other leafy material, but not made of mud, or iron sheets or bamboo thaties. The District Health Officer suggests the construction of borer-hole latrines and better type of huts to be provided for the residential coolies. In December 1944, all the mine owners waited in a deputation on the Collector, and reported that it was nt possible to carry out some of the suggestions of the D.H.O. in respect of housing accommodation, water supply and latrines.

Housing and Welfare Activities.

The owners provide housing accommodation for about 10 to 15 per cent. of the workers who live at the mines. The accommodation consists of round thatched huts of a conical shape erected by the employers with the help of the labourers themselves. The probable cost of each hut is about Rs. 10 at present ; the floor area is about 54 sq. feet and the worker and his family have to cram themselves and their belongings in that small space. Of the rest of the workers, about 20 per cent. are agriculturists with small lands of their own, on cultivating tenants. They live in their own houses which are slightly better, mud-walled huts with thatched roofs, with a room and a separate

kitchen and a floor area of about 200 sq. feet. The remaining balance of workers live in smaller huts of about 100 sq. feet with only one room. Contract coolies, who come for temporary work, such as earth clearance etc., do not have any housing provision at all. They have to live in the open, under the trees etc., and are exposed to dangers like snake-bites. Only colony of huts erected by an employer was specially investigated. There were about 100 huts, one hut being allotted to each family of workers. If both husband and wife were working at the mine, they were allowed to stay, but if both of them did not work in the same mine, they went to their village which would be some 4 or 5 miles away and live in their own poor huts. The huts were constructed not in one straight row, but there were as many rows as there were castes among the mines. The feeling of caste difference and superstition appeared to be dominant among the miners and a miner belonging to the *yanadi* caste did not go and reside along with a *vaddi* or an *erukala* caste man. Most of the huts were deliberately kept vacant by the workers, on the ground that some hut or other was previously occupied by a man belonging to a caste other than his own. Before such a hut could be occupied by the new incumbent, it had to be completely removed and rearranged.

Miscellaneous.

Grain-shops.—The workers are suffering a lot since there is no provision made by the employer to set up a grainshop near the mine. They have to go to far-off places where there are some shops, and the shop-keepers hoodwink them and charge much more than the controlled rate. Till recently, grain-shops were managed by some of the employers, but owing to the difficulty of procuring foodstuffs, they have given up the idea. In some cases, some workers eat *Cholum* and not rice, and even though there are rice shops at some of the mines, the workers are not able to make use of them. Even where grain-shops are organised, the employer always wants to sell rice etc., at a rate higher than the market rate, with a view to compensating himself for the transport and other incidental expenditure incurred by him in getting the supplies. The necessity of instituting co-operative stores is much felt by the workers and they are badly in need of one at every important centre in every range. They are also badly in need of medical aid. For all the workers in this mining district, there is only one dispensary at Pondalakur which is run by the District Board authorities and the location of that dispensary is away from the cluster of mines, some 6 miles distant. The workers at the mines are frequently suffering from malaria and occupational diseases like the eye-disease. There is no apparent incidence of silicosis among the mine workers, but when a dry compressor is used, the dust raised causes lungs trouble among workers underground.

Working of Existing Legislation.

The Principal legislative measure applying to mica mines (which are not *uparchallas*) are the Indian Mines Act, the Workmen's Compensation Act, and the Mines Maternity Benefit Act. The Indian Mines Act was considered by labour leaders as satisfactory so far as its provisions were concerned, although its enforcement left much to be desired. As regards the Workmen's Compensation Act, objection has been taken to the procedure adopted by the authorities for the award of compensation, which is stated to be too difficult and not quite just to workers. The authorities, it is stated, depend entirely upon evidence of Government records which are not properly kept by the village officers owing to corruption. It was suggested that the evidence of workers and other people in the locality should also be taken into consideration for the purpose of adjudication. It was also suggested that all underground workers should be compulsorily insured against accidents by the mine-owners. The third Act, the mines Maternity Benefit Act, appeared to be almost inoperative : employers are unwilling to give benefit, while the workers

are ignorent and hoplessly ill-organised. No measures are taken by anybody to enforce the Act.

Indebtedness.

Most of the workers are indebted. Part of the indebtedness takes the form of advance given by employers themselves. This system leads to dependence upon the employers and the workers seeks to avoid liability by running away even without paying the principal. Other cases arise in which workers are indebted to shopkeepers for purchase of provisions. About 75 per cent. of workers are thus indebted, the average indebtedness being about Rs. 25 to 50 per head. In individual cases, this goes up to even Rs. 100 or Rs. 150. The drink evil, which is quite rampant here, is another potent cause of indebtedness. The main measures necessary to eradicate indebtedness would be the establishment of a minimum wage and a general increase in the wage level, better education, welfare propaganda, control of liquor, and improvement of the trade union organisation, especially on the co-operative side.

Education.

The employer is not all interested in the education of the workers' children or the workers themselves. Of all the mines investigated, it is only in A13 that a school is organised at the mine, where it is said that the children of the workers are being educated. But children are allowed by their parents to work in the mine out of sheer economic necessity, and the employer allows them to work since child labour is very cheap with the result that most of the children of the miners are not at all educated. The worker feels tired after the day's work and even if night schools are maintained, he is not able to take advantage of them. This illiteracy indirectly leads to immoral habits, and it is no exaggeration to say that most workers are of a very loose character. Most of them are addicted to drink and drugs, and these evils are rampant in this district.

The most important item in mining is the welfare of the employees and no attention is paid to this by the mine-owners. Provision for adequate water supply, adequate housing and medical attention, sanitation, establishment of schools for miners' children are some of the items that may make the workers contented employees. But at present the case is just the contrary. The workers are not contented at all. The Workmen's Compensation Act and the Maternity Benefit Act are deliberately ignored by the employers in most cases and no special attention is bestowed on the welfare of labourers ; proper shifts of work are not observed; children below 15 are employed; women are employed underground in some cases and sanitary and health provisions are disregarded by the mine-owners. All this can be rectified to some extent, if a separate administrative machinery is set up to enforce labour legislation. At present, the officers mainly concerned with the working of mines have no jurisdiction over labour welfare. For example, the income-tax department is mainly concerned with levying the Income-tax ; the Mica Inspector with the assessment of the royalty ; the Senior Inspector of Mines pays only an occasional visit, his jurisdiction being very wide ; and the District Health Officer is concerned only with sanitation and ventilation in the mines. Thus, there is a lot of uncoordinated activity, which must be regularised.

MICA FACTORIES.

The Mica splitting factories in Madras are concentrated in the Nellore District itself, particularly in Gudur and Chennur, and in a number of villages around these centres. There are about a hundred " factories " each employing more than 50 workers. The total number of workers employed in the splitting establishments could safely be estimated at 10,000, of whom 6,000 may be employed in the larger factories, and the rest in very small units and in the domestic section. More than 90 per cent of the workers here are women,

while a large number of children of ages from 5 upwards are employed in splitting. The employment in the industry has declined of late owing to the fact that the Joint Mica Mission is rejecting a large part of the mica produced and taking only the best qualities. Gudur, the main centre of activity, is a subdivisional headquarters town with a population of about 12,000 and a Union Board, but the general development of the town has been very poor.

The main work in these factories consists of (a) dressing and sorting further the mica received from the mines, (b) sorting the mica according to quality and area, (c) splitting mica rounds into films of various types known as "Jams", "ordinary loose", "dusted loose" and "condensers". The splitting of "jams" has fallen out of vogue since 1934. "Condensers" which are very valuable and the splitting of which calls for great skill and strain, were being split to a considerable extent from 1940 to 1943, but they are also not in much demand now. The main varieties now being split are, therefore, "ordinary loose" and "dusted loose". By "ordinary loose" are meant splittings simply taken from rounds, rejecting the waste; "dusted loose" signifies splittings of a superior quality on which mica dust is sprinkled so as to prevent their adhering together. The pounding of mica dust also used to be done by the women labourers engaged in splitting. For this, they were not paid anything extra, and it used to cause a lot of nuisance to them. This has now been discontinued and pounding is now done by machinery. There are certain other types of work like pecking the splittings into boxes, removing them from place to place, etc., which are also done by sorters of whom many are women.

The main occupational types in these factories are sorters and splitters. Some of them are also known as *mistries*.

Concerns Investigated.—Eleven splitting factories were investigated, out of a total of 46 concerns approximately employing 750 persons.

TABLE 15.

Average Daily Number of Sorters and Splitters on Rolls in January 1944.

	Sorters		Splitters	
	Men.	Women.	Domestic.	Factory.
1	4	6	..	10
2	8	27	..	35
3	7	10	..	17
4	4	9	..	13
5	10	9	..	19
6	23	8	(20)	31
7	6	11	(16)	17
8	6	10	(94)	16
9	14	43	(103)	57
10	14	7	(27)	21
11	23	35	(108)	58
	119	175	(368)	274

The total number of sorters involved in the investigation 294 (119 men and 175 women) and 274 splitters, most of whom are women and some children. Besides these splitters who are on rolls, there are a large number who take the mica rounds home for splitting, whose numbers are indicated by the figures in brackets.

Employment.

Length of Service.—No records of service are available in any of these concerns. Information, so far as it could be orally collected is given in the table below.

TABLE 16.

Length of Service.

Number of concern.	Those between 0—1 year.	Those between 1—5 years.	Those between 5 & 10 years.	Those over 10 years.
1	..	2	..	..
5	14	5	..	..
8	1	15	..	..
9	37	..	14	..
10	..	6	7	3
11	16	25	17	..

From this, it will be seen that most workers fall into the groups between 0 and 1 year of service, and 1 and 5 years. This refers only to sorters employed on daily or monthly wages.

There is no security of employment ; all the workers engaged in the industry are on a temporary basis. They do not enjoy any privileges regarding notice for termination of service, casual leave, or sick leave, holidays with pay, provident fund or gratuity. There is no promotion according to time-scale or grade. The workers complained that in course of time, the strain involved in the work had increased due to the progressively more exacting standards insisted upon by employers, but wage rates had not risen correspondingly. The relations between employers and employees are purely governed by the will and pleasure of the employers. There are no established rules or standing orders.

Turnover.—The following table gives the figures of turnover for the month of January 1943 in the Units.

TABLE 17.

Turnover during January 1943.

No. of Unit.	Average number employed in 1943.	Number of those who left the concern during month.
(1)	23	..
(2)	36	28
(5)	18	6
(6)	14	*Nil*
(8)	25	7
(9)	57*	1*
(10)	16	*Nil*
(11)	54	2

* These figures refer to January (1944).

All those who left are said to have gone voluntarily. The figures are so varying and unreliable that no useful conclusions can be drawn.

Absenteeism.—The percentage of absenteeism for the month of January 1943 in the different units are given :—

TABLE 18.

Absenteeism during January 1943.

No. of Unit.	Percentage of Absenteeism for January 1943.
(1)	34·7
(2)	19
(3)	3 (June 1943)
(4)	19
(5)	20·7
(6)	42·6
(7)	9
(8)	10·9
(9)	11·5 (January 1944)
(10)	1
(11)	2·9

The figures of absenteeism are also very diverse as between different concerns. In three concerns it is very low, standing at 1, 2 and 3 per cent. respectively. In three other concerns it stands near 10 per cent. (9, 10.9, and 11.5). In three more concerns it stands near 20 per cent. (19, 19, and 20.7 per cent.). In two concerns it is more than 30 per cent. Here again it is very difficult to draw any conclusions. The most reasonable conclusion seems to be that it ranges between 10 and 20 per cent. The only causes of absenteeism in this industry seem to be sickness and domestic difficulties.

Wages and Earnings.

Information regarding the actual wages paid is available only for sorters who are paid daily wages or monthly salaries. Splitters who are paid on a piece-rate system are sometimes directly employed by the factories and in many other cases they take the material from the factories to their homes in Gudur or the nearby villages, return the finished product and receive wages. The rates wages prevalent in the different concerns are given below.

Table 19.

Rates of Wages and Earnings.

No. of Units	Male Sorters. (1943).	Female Sorters. (1943).	Splitting. (1943).	Male Sorters. (1944).	Female Sorters. (1944).	Splitting (1944).
1	Rs. 15 to 18 p.m. 0-6-6 to As. 7 p.d.	Rs. 12 p.m. 0-4-6 to 0-5-0 p.d.	..	Rs. 15 to 18 p.m. 0-6-6 to 0-7-0 p.d.	Rs. 12 p.m. 0-5-0 to 0-6-0 p.d.	0-2-6 per lb. (D.L.).
2	0-4-6 to 0-7-0 per day.	Rs. 15 to Rs. 20. 0-4-6 to 0-5-0.	0-2-6 per lb. D.L.	Rs. 15 to 55. 0-5-0 to 0-7-0 p.d.	0-5-0 to 0-6-0 per day.	0-2-9 per lb. (D.L.).
3	0-8-0 p.d.	0-5-6 p.d.	0-2-9 per lb. D.L.	Rs. 10 to 13. 0-8-0 p.d.	Rs. 12 to 14. 0.6.0. p.d.	0-3-0 per lb. (D.L.).
4	..	..	..	Rs. 20.	Rs. 14. 0-6-0 p.d.	..
5	..	..	..	Rs. 10 to 16.	Rs. 13. 0-6-0 p.d.	0-2-6 per lb. 0-3-0 per lb. (D.L.).
6	Rs. 13. 0-6-0 to 0-8-0 p.d.	Rs. 10. 0-4-6 to 0-5-0 p.d.	0-2-6 to 0-3-0 per lb. D.L.	Rs. 15. 0-4-0 to 0-8-0 p.d.	Rs. 11 to 12. 0-5-6 to 0-6-0 p.d.	0-2-6 per lb. D.L. 0-3-0 to 0-5-0 D.L.
7	0-7-0 to 0-8-0 p.d.	0-4-6 p.d.	0-2-0 per lb.	Rs. 20. 0-7-0 to 0-7-6 p.d.	0-5-0 to 0-6-0 p.d.	0-2-6 per lb. D.L.
8	Rs. 9 to 25. 0-4-6 to 0-7-0 p.d.	Rs. 9 to 10. 0-4-6 to 0-5-0 p.d.	0-2-6 per lb. D.L.	Rs. 10 to 30. 0-6-6 to 0-7-6 p.d.	Rs. 10 to 12.	0-2-6 per lb. D.L.
9	..	..	..	Rs. 13 to 35 0-5-6 to 0-10-0 p.d.	Rs. 13 to 21. 0-5-6 to 0-7-6 p.d.	..
10	Rs. 10-8-0 to 12-8-0.	Rs. 7.	0-1-0 per lb. D. L. 0-1-6, Do.	Rs. 15-8-0 to Rs. 17-8-0. 0-6-0 to 0-8-0 p.d.	Rs. 13. 0-6-0 p.d.	0-2-0 to 0-2-6 per lb. D.L.
11	..	..	..	Rs. 3-8-0 to Rs. 17-8-0. 0-6-0 p.d.	Rs. 7-8-0 to Rs. 10-8-0. 0-4-0 p.d.	..

(Figures in Rs. signify monthly salaries ; in annas daily rates ; D.L. stands for Dusted Loose ; O.L. for Ordinary Loose).

As already noted, some sorters are paid on a monthly basis and some at daily rates. The *mistries* are all paid on a monthly basis. It will be seen from the above table that the usual range of salaries for male sorters is from Rs. 10 to Rs. 20 per mensem. There have been a few cases of Bengali sorters being employed on high salaries of Rs. 50 or Rs. 55. Women sorters are paid from Rs. 7-8-0 to Rs. 14 a month. Daily rates for men sorters range from 0-5-0 to 0-10-0, the most usual rate at present being 0-6-6 or 0-7-0 per day. Daily rates for women range from 0-4-0 to 0-6-0, the most usual rate being 0-6-0. The piece-rates paid at present for splitting are usually 0-2-0 per lb. of ordinary loose, and 0-2-6 to 0-3-0 per lb. of dusted loose. Condensers where they are split, are done by sorters working on daily wages. Sorters are paid daily rates when engaged on splitting. It has already been noted above that the major part of splitting is done by people who take the rounds home.

In four out of the investigated concerns (Units 2, 3, 8 and 9) splitting is done through contractors who are paid 0-1-6 to 0-2-0 per lb. of ordinary loose, and 0-2-6 per lb. of dusted loose. The contractors charge a commission of 0-0-3 per lb. of ordinary loose and 0-0-3 to 0-0-6 per lb. of dusted loose, the commission being deducted from what is paid to the workers.

The average monthly earnings of sorters (men and women) for the month of January 1944 are given below.

TABLE 20.

Average Earnings of Sorters.

No. of Unit.	Male Sorters.		Female Sorters.	
	Monthly paid.	Daily paid.	Monthly paid.	Daily paid.
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
1 ..	12 13 0	11 6 0	..	8 2 0
2 ..	33 0 0	10 15 6	18 14 0	0 8 0
3 ..	11 8 0	10 8 0	13 5 4	9 9 0
4 ..	20 0 0	..	11 5 8	..
5 ..	12 6 0	6 14 0	..	9 5 6
6 ..	..	..	..	9 10 9
7 ..	..	8 1 6	..	6 11 7
8 ..	19 14 0	12 4 9	12 6 0	5 11 0
9 ..	26 0 0	10 12 6	16 5 4	10 2 6
10 ..	17 8 0	..	13 0 9	9 10 0
11 ..	..	3 12 0	13 10 4	8 10 0

These earnings are sometimes supplemented by earnings from splitting undertaken in spare time by sorters. Thus for instance, in Unit 6 three sorters who earned Rs. 10-4-6, Rs. 9-1-6 and Rs. 11-12-9 respectively as sorters, earned in addition Rs. 4-1-3, Rs. 3-7-0 and 0-10-0 respectively from splitting. No information is available about splitters and their earnings, as they are paid according to quantities split, which are not specifically noted according to the number of days worked in any pay roll. The average earnings of splitters could be estimated at about Rs. 10 per mensem if they worked regularly throughout the month.

A few firms are employing Bengali sorters who are paid higher salaries going up to Rs. 50 or Rs. 55 a month. They are also given a month's leave in the year and the train fare to go home and return.

The rates of wages for sorters have gradually risen from 4 annas to 5 annas per day in 1939, to 0-4-0 to 0-8-0 a day in 1944 for men, the most usual rate at present being 0-6-6 or 0-7-0 per day. The rates for women sorters have also gone up from 0-3-6 to 0-4-0 in 1939 to 0-4-0 to 0-6-0 per day, the most

usual rate being 0-6-0. Monthly salaries which ranged, between Rs. 10 and 15 for men, and Rs. 7 and 10 for women in 1939, range now between Rs. 15 and 20 for men and Rs. 10 and 15 for women. These changes in rates seem to have taken place very gradually by small steps.

The piece-rates for splitting have gone up from 0-1-0 per lb. of ordinary loose in 1939 to 0-2-0 per lb. or 0-2-6 in some cases in 1944, and from 0-1-6 per lb. of dusted loose to 0-2-6 and in a few cases 0-3-0 per lb. in 1944.

The employers say that in addition to this rise in rates, they pay dearness allowance and bonus to the workers. The details of these for the different concerns are given below.

TABLE 21.

Dearness Allowance and Bonuses.

No. of Unit.	Dearness Allowance.	Bonus.
(1)	*Nil*	Rs. 20 per year.
(2)	Rs. 0-2-8 in the rupee	Two months earning on the basis of March 1944.
(3)	*Nil*	*Nil.*
(4)	Rs. 0-1-6 in the rupee from March 1944 ..	*Nil.*
(5)	*Nil*	Bonus of two months' pay to monthly paid employees. None to daily rated workers.
(6)	*Nil*	Bonus of one month's wages.
(7)	*Nil*	Sorters and office staff get a bonus of 1 month's pay.
(8)	12% of basic pay	Bonus at the discretion of the Employer.
(9)	*Nil*	Sorters and office staff given approximately 6 months' pay as bonus.
(10)	Rs. 5-8-0 for those below Rs. 40 per mensem 10% of salary for those above from August 1943	One month's pay.
(11)	50% of monthly pay for workers; 33-1/3% for office staff	3 months' pay given to monthly paid staff in 1943.

Most of the employers also say that the women workers are given a saree each as a present for the Pongal festival every year. No records are maintained to show the payment of any of these; workers allege that none of these payments are made in fact.

Information regarding overtime is not forthcoming in most cases. In one case (Unit 3), it was stated that overtime is worked occasionally, and paid for at double the ordinary rates. In another case (Unit 6), overtime, or work at night when occasionally done is paid for at the rate of half day's wages for two hours work. In neither of these cases, however, are these payments entered into a separate register or even a separate column in the muster roll. The period of wage payment for sorters is one month. Wages are paid usually between the 5th and the 10th of the subsequent month. Home splitters are paid whenever splittings are received from them. In a few cases, it is alleged that payment of wages is unduly delayed to the extent of even two or three months. There are no fines or deductions. But it is alleged that the splitters, particularly those engaged in home splitting are systematically cheated in weighment by the clerks, sometimes under instructions of the employers. When splitters are given rounds in the factory, they are given more than what they are paid for, and the wages for the excess entered in the names of absentees and appropriated by the clerks. Home splitters are paid by false weighment, e.g., 1-1|3 lb. being entered as 1 lb. Another abuse which, it is said, was very much prevalent formerly but is somewhat reduced now is the allotment of all sorts of odd jobs to workers for which they are not paid at all.

Holidays.—There are no holidays with pay in any of these concerns. Sundays are usually closed days, but in most cases work is done on Sundays also when necessary. Holidays are also given for important festivals.

Working Conditions.

The splitting factories are not obliged to observe any regular working hours. But nowadays they are observing regular hours, though at times they may carry on work after hours or even at night. Most concerns work from 8 or 8-30 A.M. to 12 or 12-30 A.M. and again from 2 or 2-30 P.M. to 6 or 6-30 P.M., thus working 8 hours a day with a rest interval of usually two hours. A few concerns start work earlier in the morning in summer, and start it later at about 3 P.M. in the afternoon. Only one concern works for 9 hours in the day. There is no shift working.

In general the working conditions in these factories are unsatisfactory. Excepting three or four concerns which have built their premises recently, the others are all situated in old tiled houses with small rooms which do not allow much of ventilation or light. Workers sit in small verandahs or rooms and carry on their work. As the split and unsplit material has also to be stored in the same place, there is usually much overcrowding. The flooring is in most cases earthen, except in the new factories, but even where there is cement flooring it is not kept in good condition. The premises are not frequently whitewashed and are not kept clean.

Welfare Activities.

These are totally absent in these concerns. Excepting in one Unit, no latrines or urinals are provided. As the factories are in the town with no open spaces around, and as a large number are women workers, it is obvious that they have to suffer a lot due to this difficulty. No proper drinking water is provided. There are no places for shelter during the rest interval, or for taking food. When it is remembered that many workers have to come from villages or five miles off, the difficulty they experience due to the lack of places of rest can easily be imagined. They have to take their food at the nearest street tap. There are no canteens or creoches. There is a high school and also a few elementary schools in the town, but as even children from the age of six begin to earn by splitting, no children of the working class take advantage of these schools. It can be said that practically all the workers and their families are illiterate. There are no other amenities such as grain shops. There are no medical facilities except those offered by a small Government hospital, with a sub-Assistant Surgeon (L.M.P.) as its head. There is no lady doctor, nor any separate provision for the treatment or women and children.

Housing and Health.

No houses are provided by the employers. All workers live in private houses, mostly owned by themselves and rented in a few cases. The houses have mostly thatched roofs, and walls, and earthen floor. There are usually two rooms, one living room and a kitchen, the total floor area being about 150 square feet. A few of the workers have better houses with tiled roofs, brick walls and two or three rooms, the floor area being about 300 square feet. A small proportion of workers live in rented houses, paying a rent of Re. 1 to Rs. 3 per mensem. Most of the workers engaged in the industry suffer from bad health. Their growth and general physique are poor. Many of them suffer from tuberculosis and an overwhelming majority from venereal diseases. It is said that the morals of these people are very loose and they also spend more on fashionable dress and cheap ornaments than on the essentials of life. Most of them are indebted, the average indebtedness being Rs. 15 to 20 per

head. The source of credit is the ubiquitous money-lender (including the *Pathan*) who charges interest at 0-0 6 to 0-2-0 per rupee per mensem, i.e., nearly 40 to 150 per cent. per annum.

Trade Unions and Strikes.

There is a registered Trade Union representing the Mica workers of this region, known as the "Gudur Division Mica Workers' Union." The membership of the Union has increased from 57 (at start) to 1,036 (at present) and extends over splitting establishments as well as mines. The Union has been able to voice effectively the grievances and claims of the workers. They have been agitating for the extension of the Factories Act to splitting concerns. Among the achievements claimed by them are the securing of compensation in eight cases of accidents, amounting to Rs. 2,608 ; the enforcement of workers' claims for wages in cases of delay or non-payment, and the securing for the first time of maternity benefit in five cases amounting to Rs. 142-8-0. They have also been running night schools for adult workers, and special classes for training in splitting, sorting and grading. There have so far been no strikes in the industry. On the other hand, there have been occasions of joint action by employers and the Union, e.g., against a proposed enhancement of the royalty on mica.

CHAPTER V.—RAJPUTANA.

The resuscitated mica industry of Rajputana is not more than a decade old. Earlier, in the first two decades of this century, several mining concerns of Bihar worked in Rajputana field also, but they gave up the venture after some time as it proved unprofitable. Mica books which they discovered were of a very interior quality—black, stained and generally warped and since then it has been the general belief of mica merchants that the Rajputana mica area is unfit for exploitation. It is only during the past five years, with the rise in the demand for mica, that mica mining has developed into a major industry of the area providing employment to about 15,000 persons. In pre-war days, crude Rajputana mica was exported to Bihar for manufacture, but, in the course of the present war, factories have been established at several places in the Udaipur and Jaipur States and processing on an appreciable scale is being done there.

The structure of the Rajputana industry has several distinguishing features. Chief among them are (a) the total absence of dealers in mica, apart from the mine-owners themselves, and (b) the existence of only five firms engaged in mining in an area considerably larger than that of Bihar, *now* making determined efforts to develop the mines in a most scientific and methodical manner. (c) On the whole, moreover, mica labour in Rajputana is far better fed and clothed and also workers look more cheerful and healthy than in Bihar or Madras.

MINING.

Prospecting methods in Rajputana are entirely different from those in Bihar or Madras. A very large number of mines have been discovered under level ground, and the usual surface indications,—felspar, quartz and small pieces of mica found in other areas,—are absent here. Search has to be made first for pegmatite and then digging for the vein started. Needless to say, the absence of surface indications has made prospecting in Rajputana more costly and more hazardous than in Bihar. Often, however, rats and ants have helped the prospectors by bringing out small pieces of the metal to the surface. If prospecting leads to the discovery of a good mica mine, the pit is widened and deepened as per requirements and mica is just dug out. Thus, there is not much difference between a prospecting pit and a mine proper. Instead of laying shafts and driving strikes, huge

excavations are made and mines usually look like oblong pits. Since they are open, they get flooded in rains and mining operations have to remain suspended for over three months in the course of a year. Now, however, a few mines have been mechanised and are being developed on sound lines under the supervision of qualified mining engineers. While in Bihar and Madras some mica mines have gone to a depth of over a thousand feet, not even one in Rajputana is more than 125 ft. deep.

Types of Workers and Processes.

There is little specialisation of functions as far as the open mines are concerned, e.g., a hand-driller may be employed as water-carrier for part of the day. The only distinction, however, between skilled and unskilled labour is in regard to wages. Only in the mechanised mines the usual classification of workers obtains. They have unskilled workers under-ground, hand-drillers, machine-drillers, *sardars*, shifts bosses, blacksmiths, mechanics, engine and pump khalasis and a mine manager at the apex. A very large number of women and children are also employed as unskilled workers to relay up mica baskets. The usual method of pursuing the mica vein from book to book is followed in Rajputana also. While earlier this was done under the guidance of ignorant local *sardars*, now the same thing is being done under the charge of mine engineers. The task of shot-firer in the open mines is less hazardous, because concrete steps from the bottom of the pit to the surface have been built and it is easy for him to run up the flight. Blasting is done at the end of each shift and where only one shift is worked at the end of the day. A strong guard is maintained at the mines for the night and mica books are collected in the morning. Some mica owners, however, prefer to collect books late in the evening. Mica books obtained from the mines are opened and dressed at the mines and are despatched to factories for further processing.

Survey and Legislation.

So far there has been no survey of labour conditions either in the Udaipur and Jaipur States or in Ajmer-Merwara. Nor has there been any legislation regulating mica mining in the two States. It is understood, however, that Udaipur intends to establish a set of rules along the lines of the Indian Mines Act. Of course, the Indian Mines Act applies to the British Indian territory, *viz.*, Ajmer-Merwara, but only a very small portion of the mining belt lies within this territory. The *laissez faire* in the States has lately been replaced by an active supervision and control of mining methods by State engineers and geologists and it is a tribute to their work that working conditions there are better than in the regulated British Indian areas. Attendance registers showing, in respect of each employee, the nature of his employment, the periods of work fixed for him and the relay to which he/she belongs are maintained. Payments made to workers are also shown in these registers but thumb impressions are not obtained. It was, however, found that entries for payments are first made in the indigenous account book and later copied out in the registers. Compensation for accidents is seldom paid and no records of such payments, if any, are kept.

Inspection.

Mica mines are dispersed over a very wide area which is served only by *kachcha* and extremely uneven roads, so much so that even motor vehicles cannot do more than *ten* miles an hour. It may be due to this that only a few mines are inspected every year. In 1938 out of 31 mines under the scope of the Indian Mines Act in Ajmer-Merwara, none was inspected, and, during 1939 only 16 were inspected. Besides these, there are about 400 mines in the two States and these are inspected by State geologists and engineers, though records of such inspections are not maintained. The position with regard to

the frequency and adequacy of inspections, though slightly better than what it is in other areas, leaves much to be desired. The staff employed by the States is inadequate to cope with inspection work in such a wide area. Since, however, there are only about half a dozen properly mechanised mines in the entire field, they do receive considerable attention. Moreover, no attempt is made to evade inspections. On the contrary, mine-owners are usually keen on getting the Inspector to their mines and asking for suggestions to improve conditions.

Wages and Earnings.

On the whole, the wage position in Rajputana is considerably better than in Bihar. While there is no appreciable difference between the rates of wages paid for similar occupations in the two areas, the cost of living even on a somewhat better standard is considerably lower. In terms of real earnings, therefore, Rajputana mica miners are better off. Below are given comparative market prices of some basic commodities :—

TABLE 22.

Market Prices of Basic Commodities.

Commodity.	Quantity per rupee. Rajputana.	Bihar.
Wheat	6½ seers.	3 seers.
Millet	9½ seers.	5 to 6 seers.
Pulse	10 seers.	5 seers.
Ghee	10 chhataks.	4 chhataks.
Milk	8 seers.	3 seers.

Basic wage rates for different types of workers are given in the following table :—

TABLE 23.

Rates of Wages.

	Mine A1	Mine A2	Mine A3	Mine A4	Mine A5	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Unskilled Male Workers	0 8 0	0 9 0	0 8 0	0 7 6	0 6 0	1939
	0 12 0	(1945)	0 12 0	0 12 0	0 12 0	1945
Hand-Driller	0 8 0	0 11 0	0 8 0	0 7 6	0 6 0	1939
	0 12 0	(1945)	0 12 0	0 12 0	0 12 0	1945
Machine Driller	..	1 0 0	..	..	..	1939
	1 0 0	(1945)	..	..	..	1945
SARDAR	25 0 0 p.m.	30 0 0 p.m.	..	..	..	1939
	35 0 0 p.m.	(1945)	..	0 14 0 p.d.	0 10 0 0 14 0	1945
Shot-firer	25 0 0 p.m.	0 12 0	0 10 0	0 10 0	0 8 0	1939
	1 2 0 p.d.	(1945)	0 14 0	0 14 0	0 14 0	1945
Carpenter	25 0 0	..	..	..	..	1939
	35 0 0 p.m.	1 0 0 p.d.	..	1 0 0 p.d.	..	1945
Females	0 4 0	..	0 3 0	..	0 3 6	1939
	0 6 0	0 6 0	0 6 0	0 6 0	0 6 0	1945
Children	0 4 0	..	0 3 0	0 3 0	0 2 6	1939
	0 6 0	0 5 0	0 5 0	0 6 0	0 5 0	1945

In the first three years of the present war, wages remained almost stationary. Since 1943, however, wages have been gradually increasing. The general wage level in mica mines in Rajputana has gone up by about 50 per cent. since 1943. Separate dearness allowance is not paid, but annual bonus

is given to all employees—skilled and unskilled, if good profits accrue. One of the concerns gives at least one month's pay as bonus every year to its employees. Besides these, there are the benefits in kind,—free supply of kerosene oil to all workers and provision of housing accommodation to some of them. It seems that no overtime is worked, and at any rate no records for either such work or payments for that work are maintained. Labour employed by *uparchalla* contractors is paid slightly higher wages than labour employed by mine-owners. Thus, while an unskilled coolie working in a mine gets As. 12 per day, he may get As. 13 or even As. 14 per day from the contractors for the same kind of work. In this case, however, no benefits in kind accrue, nor is any payment made for the extra work which they have always to put in. Wages are paid directly to the workers and not through the medium of *sardars*. The period of wage-payment is usually a fortnight and wages are paid on the 3rd and 17th of every month, i.e., two days after they fall due. No delay in the payment of wages is made by the mine-owners, but the contractors do delay payments if they on their part do not receive money from the mine-owners in time. Deductions either by way of fines or for *dharmadan* or *goshria* are not made.

Employment.

Recruitment.—Labour employed in the Rajputana micafield is recruited locally and no outside labour has infiltrated into the area. It does not, however, mean that the required number of workers are available in the neighbouring villages. Workers have often to be brought from places forty to fifty miles away. Recruiting *sardars* are sent out to recruit labour as and when necessary. Travelling expenses are paid both to the workers and to *sardars*, though no commission is paid to the latter for fetching labour. Shortage both of skilled and unskilled workers is a serious problem for the industry and in the course of the present war it has been accentuated further by an unceasing denudation of workers to other Provinces for employment in the C.P.W.D. or in industrial establishments. Further, a large number of men have joined the armed forces. And while fewer people are available for employment in the mines now than ever before, the demand for such employment has gone up considerably. As a matter of fact, from insignificant numbers, employment in the Rajputana mica mines has suddenly shot up to about 10,000. In addition to these, it is estimated that another 5,000 workers are employed in *uparchalla* workings. It may be due to the shortage of male adult labour that a large number of women and children have found employment in mica mines, and such employment in Rajputana is on a larger scale than in Bihar. Out of 100 workers employed in the mines, about 65 are men, 20 women and 15 children of 12 to 15 years of age. The technical objection to employing women at the bottom of the pit does not, of course, arise as most of the mines are open and shallow. Children and women are employed to relay up muck baskets, and the latter as water carriers also.

Labour turnover.—So far the Rajputana mica industry has not been able to build up a stable labour force, and since the development of mines too has not been on scientific lines, there has been little specialisation of functions. Men can change over from employment in mines to other places without any fear of relapsing into the category of unskilled workers. The availability of alternative employment—often far better paid—also increases the turnover of labour. But by far the most important feature in this connection is the wholesale seasonal migration of mica labour to agriculture. Agricultural ties in Rajputana are far stronger than what they are in Bihar or Madras, so much so that mining has to be suspended for about five months in a year in a large number of mines. Another contributory cause is, of course, the filling up of open mica mines during the rains, which makes mining impossible for

at least a couple of months. Further, during the " marriage seasons "—from the middle of March to the end of June—there occurs a large-scale exodus to the village. This feature, though not peculiar to Rajputana, is certainly great-by magnified.

Absenteeism.—Absenteeism, however, is not a problem for the Rajputana mica mining industry. The general health of the Rajputana labourer is above par and little absenteeism is caused by sickness for nine months in the year. It is only during the rainy season and for a month thereafter that malaria ravages the area, taking heavy toll of workers and a large number of workers either leave the mines or absent themselves intermittently. It is of special interest to note that the Rajputana mica mines labour has not taken to drinking and so one of the major causes of absenteeism in Bihar luckily finds no counterpart in Rajputana. Nor is attendance in mines any lower on the day following the pay day. It is possible that this commendable regularity in attendance on the part of labour is a becoming reaction to the policy of the Udaipur State of granting paid weekly and festival holidays to all workers. The following table gives the average number of persons employed in and about the mica mines under Indian Mines Act, in Ajmer-Merwara :—

TABLE 24.

Average daily employment in mica mines in Ajmer-Merwara.

Year	Underground All males.	Open working		Surface		Total.
		Males.	Females.	Males.	Females.	
1938	156	245	107	111	..	619
1939	209	631	250	179	..	1,269
1940	267	593	299	173	..	1,332
1941	473	1,736	1,193	275	..	3,677
1942	456	1,743	1,067	314	17	3,597
1943	372	2,039	899	280	36	3,626

The following figures for employment in mica mines during February—October 1944 in the entire Rajputana area (including both Ajmer-Merwara and the States) were supplies by Lt. K.C.G. Heath, Mica Production Officer, Ajmer :—

TABLE 25.

Average daily employment in the Rajputana mica mines.

Month in 1944	Average daily employment.
February	10,980
March	10,320
April	8,170
May	9,770
June	11,080
July	11,400
August	11,190
September	9,660
October	7,800

Working Conditions.

On the whole, working conditions in Rajputana are satisfactory. The vexed problems of lighting and ventilation do not arise in the case of the open mines. As said elsewhere, steps of concrete lead from the bottom of the pit to the surface and, therefore, negotiating the open workings is neither difficult not risky. Even the properly developed mines in this area are not more than 100 feet deep. Wooden ladders have been installed in narrow shifts and it

is only with extreme caution that a man can avoid bumping his head against the ceiling of the next level, while climbing the ladders. Moreover, the trickling water makes the ladders slippery. This makes the task of muck-carriers dangerous as they have to hold the baskets with one hand and to manipulate the climbing only with the other. In the mines surveyed, it was claimed that no accidents had even occurred, but if the mines go deeper they are bound to occur unless wooden ladedrs are replaced by lifts. Lighting arrangements in the Rajputana mines are much better than what they are in other areas. All underground workers are provided with candles fixed in a frame of tin which checks the current of air and prevents the candles from going out. It is interesting to note that a small mine employing about 50 persons had been electrified and the mine-owners stated that the electrification had been done with only slight extra expenditure which did not affect the ultimate working costs to any appreciable extent. Electrically lighted mines, even in this area, are, however, very few, as mechanisation has not proceeded far. There are also some mines lighted by kerosene lamps and in such cases the conditions are no better than what they are in Bihar or Madras. The ventilation of mines was found to be very satisfactory. Roofs of the strikes are not low and a man of average height can easily walk without bending.

Accidents and Occupational and Other Diseases.

No entries have so far been made in the Accident Registers maintained at the mines, and in the absence of any allegations to the contrary, the inference is that no accidents have occurred. In the open excavations, accidents are likely to occur by slipping down the open sides. The surface edges in the open excavations are not fenced properly and it is likely that children playing about the mine may slip down. Another mode in which accidents may occur is the subsidence of sides and this is likely to happen where the upper part of the side bulges out towards the open excavation. Further, water is drawn from the bottom of the pit in skin-bags by ropes passing over pulleys, and as the bag goes up, a considerable part of it trickles down on the side. This is likely to soften the side and to cause subsidence. In the mines proper, accidents may occur due to miscounting of shots or by fall of sides and things falling down shafts. Cases of swooning, reported to be common in Bihar, have not occurred in Rajputana as the mines are relatively shallow.

Since the mica mining industry of Rajputana is not older than a decade, the incidence of occupational diseases cannot be gauged properly. Diseases prevalent in the Bihar area, for instance, are malaria, dyspepsia, bronchitis, silicosis and rheumatism, but, barring the first, these diseases have not been detected in Rajputana. Malaria is rampant in the entire area, so much so, that it becomes one of the major causes for the shortage of labour during the rains. The open pits fill up with water and become veritable mosquito-breeding centres. Silicosis has not been detected in any worker, but it has to be remembered that dry machine-drilling has been started only very recently and that too in a few mines, and that twice during the year workers migrate to their village homes, once for agricultural operations and then again for social functions during the marriage season. Dyspepsia cases also are few as drinking water is obtained from wells and not from stagnant pools. Rheumatism again claims little incidence here, as neither mines nor open excavations are deep.

Welfare Activities.

The problem of making arrangements for drinking water, though not as acute as in Bihar, does form one of the special difficulties of the mine-owner. Efforts are being made to dig wells near the mines, but sometimes water has to be fetched by women from two or three miles. Water is stored in tin canisters, drums and earthen pitchers, and the supply is sufficient for drinking

purposes. No latrine accommodation has been provided at the mines ; nor have shelters been built. This must obviously cause great inconvenience to the workers, who have to work all the day in the open excavations under a scorching sun. Arrangements for medical aid are few in Bihar and Madras, but they are fewer still in the Rajputana area. No mining concern has yet established hospitals or employed qualified doctors to look after the welfare of its employees. A first-aid appartus in maintained at each of the mines, but one mine-owner thought it better to keep the first-aid box at the head office in the town rather than at the mines ! Sick workers go back to their village homes and re-join after recovery. For the period of enforced absence due to sickness, they get no wages. Arrangement for medical aid is one of the crying needs of the industry. The only welfare activity which the employers have voluntarily undertaken is the establishment of schools for primary education in the villages adjoining their mines and factories. Messrs. Duduwalla and Co., one of the leading firms here, claimed to have opened six such schools during 1944. Admission to these schools is not restricted to the children of the employees of the firm only and is optional.

Housing.

Accommodation is provided only to workers recruited from outlying areas but they constitute less than 10 per cent. of the total employment in the mines and open workings. The vast majority of them stay in the villages nearby. *Pardesi* labour is housed in mud huts with thatched roofs and often the mine-owner rents a few *kachcha* houses in the adjoining villages for accommodating his *pardesi* labour. In a room, 10′ × 10′, four workers are generally lodged and unless it is a house wherein the workers stay, no latrine accommodation is provided. Workers have to go out into the open to attend calls of nature. The frontage and inside of the workers' quarters are commendably clean and the credit for this goes to the Marwari women who have clean ways of living. In the case of mechanised mines, one room is provided to every technical employee, so that these may be at call any moment. No rent is charged for the housing accommodation provided.

Indebtedness.

As far as could be ascertained, the incidence of indebtedness is low among Rajputana miners, and their economic position is considerably better than that of Bihar and Madras miners. It is only for marriage celebrations or in periods of illness that workers have to go in for borrowing. In these days of labour scarcity, the mine-owners like to oblige their employees by lending small sums without charging any interest. *Kabulis* and *Pathans* have luckily not infiltrated into this area. It is stated that the people of Rajputana regard borrowing of money as derogatory to their self-respect and hence they prefer to suffer hardships as far as possible rather than become indebted.

MANUFACTURING.

Till 1940 the entire Rajputana mica was sent to Kodarma and Giridih in Bihar for processing and export to London and New York via Calcutta. As the war progressed, transport difficulties increased and often it happened that despite the efforts of the Geological Survey of India, large stocks of crude mica accumulated in places like Bhilwara and Ajmer awaiting despatch to Bihar. It was largely because of these difficulties that manufacturing of mica was started at some places in the area and with the help of the Mica Production Section of the Geological Survey of India the industry has been able to make appreciable headway during the short period of less than 5 years. The manufacturing industry has been encouraged further by the discovery of a number of mines with good deposits of superior quality mica. A number of factories have now been established and of the bigger ones, two

are situated in Bhilwara, one in Kankrauli in the Udaipur State and another at Diggi in the Jaipur State. There are also small establishments and godowns in the area but their number is small. It is estimated that the manufacturing industry alone is employing 4,000 persons. Processing operations are carried on unfettered by any law and it may be noted that the Udaipur and Jaipur States have not prohibited even the employment of children below 12 years of age, in the factories. A large number of children between 5 to 12 years of age are employed in the factories and, as will be seen later, the percentage of children among total employees in mica factories is higher in Rajputana than in Bihar or Madras.

Employment.

Recruitment.—One of the immediate tasks for the Rajputana manufacturers was the procurement of skilled factory labour from Bihar. By paying liberal advances and travelling expenses besides promising much higher wages on a monthly basis a large number of workers were imported from Kodarma and Giridih. These have been able to train up local labour, particularly for the opening and dressing processes. As can be expected, the skill of the Rajputana worker stands no comparison with that of the Bihari. The dressing of mica books requires considerable skill. In the factories in this area, big books are mercilessly butchered in the process. The imported labour is employed mostly in the condenser films and wrappers departments. Women are employed in the opening and dressing sections which again is peculiar to Rajputana. The following table gives employment figures in the concerns investigated :—

TABLE 26.

Average daily employment in selected mica factories.

Factory.	Employment			Total employment.
	Men.	Women.	Children.	
1	156	74	91	321
2	39	10	9	58
3	206	50	36	292
4	101	53	21	175
5	76	32	12	120
6	21	..	4	25
Grand Total ..	599	219	173	991
Percentage ..	60·4	22·1	17·5	100·000

While there is no system of apprenticeship, a large number of men, women and children are being trained up in all the factories under the supervision of imported labour. Nor is there a system of graded or incremental promotion. Even the imported labour is not granted promotions from year to year and they complained that they had left home on being promised almost a millenium in Rajputana but that now they were completely disillusioned.

Labour turnover and Absenteeism.—Labour turnover and absenteeism are very low in the mica factories in Rajputana. It may be because the factories are not crowded at one or two places as in Bihar or Madras, but are situated at large distances from each other. The labour is not mobile at all and cannot go of its own accord to other areas. Besides, the local factory labour is still so unskilled that no factory-owner bothers to recruit workers from amongst the employees of other concerns. The imported labour binds itself tacitly not to desert the firm which pays travelling and other expenses for journey from Bihar to Rajputana. Apart from these, there are the difficulties of transport

in the arid area which hinder movement of labour. The employer, on his part, makes assurance doubly sure by delaying the payment of wages by a fortnight at least. If the worker decides to leave in the middle of the month, he forfeits half the month's wages in any case. Absenteeism is also low and the only cause of absenteeism is sickness. Factory workers in Rajputana are free from the drink evil which is one of the major causes of absenteeism in other areas.

Wages and Earnings.

Basic wages paid to imported labour are much higher than those paid to local labour. This disparity is justified in view of the fact that the skill of the Bihar worker is far superior to that of the local worker and also that the former has to leave his home and family behind and move to an area where the climate is just the opposite of Bihar climate. Since the factories have been started only recently, there has not been any appreciable change in the wage rates since their establishment. The following table gives the rates of basic wages paid to imported and local labour.

TABLE 27.

Rates of Wages.

Factory		Cutters	Sorters	Condenser makers	Book-form splitters	Splitters
A1	M.	0 14 0	Rs. 40 p.m. to imported labour.	..	Rs. 45 p.m.	..
	W.	0 10 0	0-10- p.d. to local (All men)	..	0 8 6	..
	C.	0 4 0			0 6 0	..
A2	M.	Rs. 20 p.m.	Imported Rs. 22 p.m.	Rs. 75 & Rs. 62 (Two workers from Bihar).	..	..
	W.	0 3 0 per seer.	..	..	..	..
	C.	0 3 0 per seer	..	..	..	..
A3	M.	0 10 0	..	..	..	..
	W.	0 8 0	..	..	..	..
	C.	0 4 9	..	..	..	..
A4	M.	0 10 0	Local Rs. 20 p.m.	..	..	..
	W.	..	..	..	..	..
	C.	0 6 0	..	..	..	..
A5	M.	Rs. 20 p.m.	Imported Rs. 32 p.m.	Imported Rs. 32 p.m.	Rs. 34 p. m.	..
	W.	0 2 0 per seer.	..	..	..	Rs. 18 p.m.
	C.	Rs. 7 p.m.		..	..	..
A6	M.	Rs. 25 p.m. to Biharis. Rs. 20 to local	Rs. 40 to Rs. 50 p.m. all imported	Rs. 50 & Rs. 70 (imported from Bihar).	..	..
	W.	Rs. 18 p.m.	..	..	..	Rs. 15
	C.	Rs. 12 p.m.				

Apart from these basic wages, some benefits in kind are available to all factory workers who have been imported from Bihar. They are supplied kerosene oil and firewood free. It was claimed by some firms that they granted one month's leave with pay to all Biharis so that they may enjoy leave at home. Travelling allowances, according to them, were also paid for the journey to and from Bihar. The workers, however, denied the above and stated that they had not been allowed any leave since they came from Bihar two or three years back. The employees of one factory in the Jaipur State alleged that they were not granted even a weekly holiday and that in spite of their being salaried employees, they forfeited wages *pro rata* for the days they were absent even if

the absence was certified to be on medical grounds. In the Udaipur State factories conditions are better and all concerns observe Monday as a paid holiday. In two firms bonus equal to one month's wages is paid to each employee if the annual returns show sufficient profits. In some concerns women and children are employed as cutters on piece-rate basis and they are paid 0-3-0 per seer. On an average a child does about a seer per day and a woman two seers, so that their actual earnings are 0-3-0 and 0-6-0 per day respectively. The period of wages payment in factories is a month and it was claimed that the wages are paid by the 8th of the month following. Bihari workers complained that the payment of their wages was delayed unduly and that they never received payment before the 15th. In one factory workers had not been paid for over three months. No payment for overtime work is made though the workers have to put in extra work often.

Working Conditions.

The leading firms have built spacious sheds for use as factories and conditions in regard to lighting and ventilation are good. Others have converted residential houses into factories and while ventilation and lighting in these is good, there is overcrowding and the scene in such factories are reminiscent of smaller establishments in Bihar. In the bigger factories, sanitary urinals and latrines have been provided for men and women separately. Hours of work extend from 10 A.M. to 6-30 P.M. with half an hour's break at 2 P.M. in some of the concerns. Not infrequently is work carried on till 7 or 7-30 P.M. but as has been said no extra payment for overtime work is made.

Housing Accommodation and Welfare Activities.

All workers brought from Kodarma and Giridih are provided with housing accommodation. No special quarters have been built for them but *kachcha* houses owned by the proprietors of the factories or other persons in the vicinity are allotted to them. In a small house, with four rooms, 10 or 12 workers are accommodated and generally there is no overcrowding. In a room 10′ × 8′ or 10′ × 10′ two or at the most three persons would be staying. There is no difficulty about urinals and latrines, as the houses in which workers live contain these. Sometimes, the upper part of a building is set apart for the residence of the workers and the lower part used as a factory. No rents are charged for the accommodation provided. There are no arrangements for medical aid and the workers have to depend upon arrangements made by the States. It sometimes happens that the factory is situated in a village, where there is no dispensary. At such places nature cure is the only method available. At some places, like Bhilwara and Kankrauli, medical aid is available locally. The leading firms contribute towards the maintenance of a few primary schools situated in the adjoining villages from which they draw their local labour. It was claimed by some employers that they advanced money to workers without interest and gave the workers an option to pay back in small instalments. At any rate, the workers were not found to be indebted. This may be due to the fact that they are not given to vices like drinking and gambling.

Conclusion.

The nascent mica industry of Rajputana has a great future before it, provided it is developed on right lines. One of the firms is contemplating the establishment of a micanite industry at Bhilwara and this a step in the right direction as the warped and spotted mica mined in large quantities can best be used in the manufacture of micanite goods. This will also provide employment to larger number of workers.

Since the entire Rajputana mica belt, barring a small stretch in Ajmer-Merwara, lies in the Udaipur and Jaipur States, the conditions of labour can be improved only if the State authorities decide to take initiative in the matter.

The direction in which welfare activities can be directed is obviously towards the establishment of hospitals and dispensaries, providing better housing accommodation for the workers, making arrangements for the education of the children of miners, improving transport within the mining area, prohibition of dry machine drilling, the use of wooden ladders and kerosene lamps in the mines, and adopting social security measures for workers in the States on the lines of those contemplated for workers in British India. In addition to these, the wage level must also be raised so that little incentive may be left to the worker to imitate his Bihar colleague in stealing his employer's mica.

PART III.

CHAPTER VI.—SUMMARY AND CONCLUSIONS.

The Mica Industry of India is one of the few industries of immense immediate and potential importance to the nation's prosperity and yet it is a sad paradox that the industry has suffered from evils of exploitation and waste. The recent appointment of the Mica Enquiry Committee will no doubt lead to the discovery of the causes of the general malaise in the industry ; so far as we are concerned, we have confined ourselves mainly to the labour aspects of the industry. India holds almost a monopoly of superior quality mica, and in view of the strategic value of the mineral and its importance to the electrical, automobile and aeroplane industries, it becomes necessary to place the industry on a sound footing not only on the technical and commercial side but also on the labour side. It has been stated that the position that India holds today "is largely due to the low cost of producing mica splittings in this country and the large amount of labour which is so readily available.* If it is a fact that India's monopoly was based upon cheap labour then as the Hon'ble Dr. B. R. Ambedkar, Labour Member, pointed out at a Mica Conference at Kodarma on the 29th April 1944, this was not "a matter of compliment either to the industry or to labour." The skill of the Indian worker is acknowledged on all hands to be of an exceptionally high order, so much so that mica is sent to India from distant countries like Brazil, United States and Canada for being manufactured into splittings. If that is so, there is a strong case for improving the lot of the Indian worker to an extent which corresponds with this superiority of skill and that the shares of the other parties, *viz.*, traders and brokers, and mine-owners are cut down so as to accommodate the miner and the worker. Apart from the potential importance of the mica industry to India and the world, its importance, intrinsically and immediately, is also enormous ; for this industry in its two sections, employs directly and indirectly a total of about 250,000 men, women and children throughout India, while the total number of people *dependent* upon it for their livelihood easily exceeds 55,000.† The total value of mica produced, manufactured and exported amounts annually at present to about Rs. 2½ crores.‡ It is, therefore, a good augury that public attention has been rivetted upon this vital question in the last year or more, and that the importance of the industry is recognised by Government and people alike after a long period of comparative neglect.

Mica occurs in rocks known technically as pegmatites. These pegmatites are largely a matter of speculation, unlike other mineral ores, and as a consequence the business of mica mining has become a gamble to some extent. Apart from this the market for mica books and splittings is outside India and as this is a strategic material the demand has not been always a very steady one. Owing to the scattered nature of the mining centres in forest areas, far from civilisation, a certain degree of lawlessness seems to have prevailed

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*Dunn, *Mica*, p. 49. †See App. V. ‡See App. IV.

in the industry. Mica piracy has, in consequence, become a first-rate problem for the mining industry. For the same reasons, labour laws, whether in the mining or in the manufacturing sections of the industry, are being disregarded if not openly defied. The labour force itself is highly unstable with excessive labour turnover, high absenteeism, inefficiency and low morale. The remedy for this state of affairs, in which the industry as well as the labour force seem to have been involved, if it is to be effective, must be a radical one.

The Government will have in the future to deal with two main problems facing the industry: one, the extremely disorganised state of the industry; and two, the exploitation which is going on both of the mineral and of the human resources in the mining and manufacturing sections. We are here concerned with the latter. In view of the highly monopolistic position of the Indian mica industry, prices for first-grade mica purchased from India could have been higher reference may here be made to the continuation of Indian Manufacturers, that the mica industry of the world is controlled by a "ring" of brokers operating in London and New York and pocketing a lion's share of the profits. That there is some truth in this contention can be seen from Appendix III, Table 2, which shows the price spreads as between India, the United Kingdom and the United States. Figures have been quoted for 1929, 1935 and 1937, which show an enromous gap between the prices available to the Indian producer and the price at which the dealers were able to sell an identical quality of mica in London or New York. Thus, in 1929, for Special (clear and slightly stained) mica, the price in India was Rs. 1,200 per maund; in U.K. Rs. 1421; and in U.S., Rs. 2,343. For the same mica, price spread in 1937 was very much bigger, Rs. 950 being the Indian price and Rs. 2,774 the American price. The Table is highly instructive as illustrating the great disparity between the wage-level (which is probably the lowest in India as well as in the world) and the enormous profit margin earned by exporters and dealers at the other end,—a disparity which will not be removed unless the industry is controlled by the Government not only at the production and but also at the distribution and export end.

The principle evils from the labour point of view which prevail in the mining and manufacturing sections of the industry may now be stated. In the case of mines, these arise mainly from insufficient enforcement of the Indian Mines Act, on the one hand, and the extremely inadequate attention which is paid to labour matters in the framing of the Act itself, on the other. Inspection of the mica mines is extremely inadequate probably due to the inadequacy of the inspecting staff itself. In the first place, the Inspector of Mines can ordinarily visit certain important areas only once in a year and he stays on for inspection for a few weeks. He has to notify mine-owners about his intention to visit. Some of the mines with which the Mining Inspectorate is concerned, naturally it cannot be expecetd to treat mica mining with any special degree of attention. Mica mining is extremely hazardous from the viewpoint of labour. Owing to the speculative nature of the industry, owners are not inclined to invest a sufficient amount of capital in widening shafts, providing lifts, etc., as is done in coal mines. Mica mines are usually extremely unhealthy, dingy, damp, ill-ventilated and insufficiently lighted. Workers have to climb up and down on wooden ladders and thus develop rheumatism and often suffer from injuries due to fall from ladders. Often there is no escape at the time of dynamiting, if the candle or kerosene lamp goes out. Moreover, the Indian Mines Act does not apply to a considerable sections of the mica mining industry, which comprises the *uparchallas* and shallow excavations. In many cases, even where the excavation is more than 20 ft. deep and more than 50 persons are employed therein, it is not declared to be a

mine under Act and the mine-owner somehow succeeds in evading the law in this regard. Thus, the application of the Indian Mines Act and its enforcement have been unsatisfactory. The Indian Mines Act, moreover, was not designed particularly to secure higher labour standards and such provisions as happen to be there look more like interpolations in the Act than any systematic attempt at codification of the labour clauses. Obviously this drawback of the Act is not peculiar in regard to mica mining but applies equally to all mining industries. However, we refrain from suggesting here the steps which would be necessary to overhaul that Act or to frame a separate Act to ensure better labour standards in Mica mining or other mining.

The labour conditions in and about the mines are most deplorable. In the first place, the micafields are situated in malaria-infested jungles, inaccessible due to lack of communications and transport facilities. The miner has to walk several miles daily to and from his village home. No housing worth the name is provided by the owners near the mines. In some cases, indeed, a few temporary huts are erected, but these are no better than cattle-sheds, in which a large number of miners, their families and even strangers are housed, packed like herrings in a barrel. There is hardly any privacy in these huts and as regards the state of sanitation, the less said the better. Fires are often caused and the workers' property and lives are lost in the grass-thatched huttings when they are gutted by fire. Fresh water is an extremely rare commodity in these areas and usually the miner has to quench his thirst at stagnant and dirty ponds. As a consequence, they suffer very greatly from hookworm, dyspepsia and ankylostomiasis. There are no sanitary arrangements in or near the mines. The Kodarma and Nellore micafields are some of the worst malarial regions in the country, and yet no action has been taken by anybody so far in the direction of anti-malarial measures. Inside the mines, men carrying burning candles with them while negotiating ladders and often these candles go out. Where kerosene lamps are used, the atmosphere becomes stuffy with kerosene fumes and carbon monoxide and it is in such an atmosphere that the workers have to work for several hours continuously. The roofs of strikes are very low and men of average height have to bend to avoid bumps on their heads. As one approaches the depth of a mine, one hears the drowning of drillers at work; at the actual spot where drilling is being done, one witnesses a none too pleasant sight. Men with only loin cloths round their waists are seen at work playing heavy hammers, in the dim light of kerosene lamps or candles. Mostly the process is that of medical dry-drilling, which causes a lot of dust and is responsible for a considerable amount of silicosis amongst miners. Only in a few mines is wet-drilling in use. Obviously, not all of the above remarks apply to the open trench mines in Rajputana or to mines in which hand drilling is in use.

Outside the mines, conditions are no better. When the worker comes out of the mines late in the evening; he has to plod his way home through lanes and byways, often in complete darkness. When a worker falls sick or has an accident, it is not possible for him to avail himself of hospital facilities as easily as in industrial towns or as in some of the other mining areas. Only one concern has a private hospital of its own though with insufficient equipment of drugs and apparatus. There are no ambulances available and very often the worker has to be borne 10 miles at a stretch on a *khatola* to the nearest hospital or dispensary for treatment. The incidence of accidents in mica mines is said to be lower than in coal mines, as these mica mines are not gassy. This is borne out in the Report of the Chief Inspector of Mines. Labour leaders, however, allege that the number

of accidents is fairly great but only a few of them are reported. As in the parallel case of factory accidents, very often lump sum compensation is paid which is far less than that prescribed under the Workmen's Compensation Act. Accidents are caused by falls of sides, or shafts, or things from above, or by explosives. When the shot-firer charges holes with explosives, connects the fuse, ignites and then rushes for shelter, his candle often goes out and darkness envelops him with the result that he cannot proceed further and very often he becomes a part of the debris caused by the explosion. It is surprising that even for such a dangerous operation as shotfiring, electric torches are not supplied. Most of the *uparchalla* workings, being less than 20 feet deep, are not converted by the Workmen's Compensation Act and hence many of the accidents taking place there are not compensated. Not a single case of Maternity Benefit being paid came to our notice and although the Indian Mines Maternity Benefit Act applies to these mines, and although a large number of women of child-bearing age are employed not only on the surface but also underground, it remains a dead letter. In the mining areas, welfare activities are conspicuous by their absence. Canteens, creches, entertainments, washing or bathing facilities and such other things are entirely unheard-of. Only some of the bigger firms have made arrangements, though they are somewhat inadequate—for medical aid.

As regards the factories, the Factories Act does not apply here, as the factories do not carry on any manufacturing process ; nor does any other labour Act apply except the Employments of Children (Amendment) Act 1939. In spite of this latter Act, however, the employment of children is a rampant evil which needs to be dealt with immediately. Children were found to be employed everywhere in open defiance of the law and the Chief Inspectors of Factories has not been able to enforce the Act. The Payment of Wages Act does not apply to these factories either with the result that there is a great confusion of accounts and illegal deductions are often made with impunity. On the weekly day of wage payment, workers stand in a queue and receive payment from the Munshi. Thumb impressions are not obtained and the paymaster's verdict is final in all cases of dispute. Payments begin at 6-30 p.m., *i.e.* after the factory hours and go on up to 9 p.m. or so. Obviously this mode of wage payment causes a lot of inconvenience to workers who have to walk four or five miles to their homes after receiving wages. The mica manufacturing industry has never had to face any shortage of labour. In fact, in recent years owing to the qualitative purchase policy of the Joint Mica Mission, mica splittings have fared badly, and in consequence, employment in the manufacturing section seems to be on the downgrade. Whole families sometimes work in factories, including husband, wife and children. Woman and children are employed as splitters and condenser film makers. (In the domestic section, over 80 per cent of the work is done by woman, mostly married women.) Inside the factories, men and women are seated in the same halls and this has led to considerable immorality. Further, their economic independence has led them into vices, including gambling and drinking. In these areas, drinking and gambling seem to be widespread, and whole families seem to be addicted to them. Absenteeism is largely due to this and increases to 33 per cent or more on the days immediately following the pay days. In factories only one shift of about 12 hours' duration is worked. Sunday is observed as an unpaid holiday for all workers. Lighting and ventilation arrangements are provided in bigger factories, but not in the smaller ones. The small manufacturer sets apart a couple of rooms or a verandah for workers and this part of the house is not either well-lighted or properly ventilated. Too many workers are huddled together in one room and not even 12 sq. feet is available per

person. Factory labour in Bihar is either recruited locally or from the neighbouring towns. A large number of workers have to come from 4 to 6 miles, as no establishment has yet thought of providing housing accommodation to its employees. In Kodarma and Giridih the two main centres of mica manufacturing, workers stay in hired lodgings paying Re. 1 or Rs. 2 per month as rent. Overcrowding and bad sanitation are common features of these private quarters. Food is cooked only once a day and evenings are kept free to visit cinema shows, roulettes and such other things. Indebtedness is fairly widespread and Pathan and Kabuli moneylenders do brisk business. The workers, given as they are to vices like drinking and gambling, have frequently to go in for borrowing. Some of the leading firms, also, it was stated, have a separate department for lending money to their own employees and they lend at exorbitant rates of interest, ranging as high as 300 per cent. in some cases.

Trade in splittings has been very profitable because of the availability of an excessively large number of domestic splitters in the districts of Gaya and Hazaribagh as also Nellore who are prepared to give a part, often a substantial part, of the day to such work. To assemble a lakh of persons—the number at present employed in this section,—inside factories would be a task impossible of achievement, nor would workers like to leave their houses and go long distances for working in factories. A class of contractors has, therefore, sprung up to serve as liaison between the factory owners and the workers. Most factories have a separate section to deal with the contractors and the contractors' workers. Smaller size S. D. B. mica is loaned either to the contractors directly or to workers introduced by them to the factories. Registers showing the dates and quantities of mica loaned are maintained. Every week on a fixed day the contractor visits the factory, returns splittings and measures of the contractors are always manipulated to the disadvantage per seer of splittings returned to the factories. Slight margin between the weights of mica loaned and splittings given back is excused, but deductions are made for wide discrepancies. The contractor, on his part, distributes mica among a large number of home-workers and records of such transactions are maintained by him. The worker is too ignorant to be able either to check the records of the contractor or to maintain separate records for himself. It is here that the worker is cheated. It was stated that the weights and borrows more mica. Contractors are paid at the rate of 0-2-6 to 0-3-6 of the workers and when it is remembered that nearly 80 per cent. of home-splitters are women, the allegations become convincing.

We may now briefly state the conclusions :—

Mining.—The Indian Mines Act is neither properly enforced nor is capable of dealing with some of the evils prevalent in the mining section. The inspection is inadequate. Mica mining is extremely hazardous and the mines are unhealthy and uncomfortable. Labour conditions in and about the mines are most deplorable. Apart from the prevalence of epidemics like malaria, there are no good roads, and the workers' transport is neglected. Housing is highly unsatisfactory and there are no sanitary or water-supply arrangements. The immediate general and welfare measures necessary in the mining section may be enumerated below :—

(1) Enforcement of the Indian Mines Act through whole-time Inspectors stationed throughout the year in the area itself.

(2) Extension of the Payment of Wages Act.

(3) Provision of medical facilities (both hospitals and dispensaries) on a very large scale, where in any case they may be found possible including prevention work (*e.g.*, anti-malarial measures).

(4) Introducton of wet-drilling compulsorily in all mines, substitution of ladders by cage-lifts, and provision of better lighting arrangements.

(5) Temporary free housing facilities to be provided by the mine-owner as a condition—precedent to starting work on a mine—in the alternative, housing schemes by Government in the mining areas.

(6) Provision of drinking water by Government or mine-owner at the mines and better sanitation.

(7) Supply of cheap grains and other consumer's goods at controlled prices in sufficient quantities at the mines.

(8) Regulation of wages and of hours of work on a uniform and rational basis.

(9) Education for children and adults.

(10) Control of liquor.

(11) Strict enforcement of the Indian Mines Maternity Benefit Act.

Manufacturing.—In this section, the principal evils seem to be those arising from low wages, absence of regulation of factory labour, overcrowding, etc. Prevalence of vices, such as drinking, gambling, etc., and of indebtedness should also be noted. *The employment of child labour* in defiance of the law is an acute problem of this section of the industry. The following measures may be suggested here :—

(1) The creation of a special factory inspectorate to deal with mica factories.

(2) Enforcement of the Employment of Children Act (Amendment) 1939.

(3) Provision of facilities for education and training, especially of child labour.

(4) Extension of Factories Act Section 5 to these factories or, preferably the enactment of a special measure like the C.P. unregulated Factories Act, 1938, which deals with certain aspects only of factory life and labour.

(5) Control of liquor and of gambling.

(6) Regulation of wages and hours of work.

(7) Provision of medical facilities and sanitary arrangements.

(8) Provision of cheap grains and consumer's goods at controlled prices.

B. P. ADARKAR.

SIMLA,

The 11th May 1945.

APPENDIX I.

MICA MINES.

TABLE 28.

Statement showing Wage-Rates in August 1939, January 1944, and November 1944 for Important Occupations in Certain Selected Mines.

Mines		Dhari Unskilled	Coolie Hand Driller	Machine Driller	Sardar	Shot-Firer	Pump Khalasi	Compressor Khalasi	Fireman	Carpenter	Durban	Watercarrier	Blacksmith
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
A1	Aug. '39	0 7 0	0 8 0 to 0 10 0	0 13 0	0 15 0	0 13 0	0 8 0	0 8 0	0 8 0	0 14 0	0 7 0	0 7 6 females.	0 11 0
	Jan. '44	0 9 0	0 12 0	0 13 6	1 4 0	0 14 6	1 0 0 to 0 13 6	0 10 0	0 13 0	1 3 0	..	0 13 6 men	0 15 0
	Nov. '44	0 9 0	0 12 6	1 4 0	1 4 0	1 0 0	1 1 0	0 12 0	1 0 0	1 4 8	25 0 0	0 11 6 ,,	0 15 0
A2	Aug. '39	0 7 0	0 8 0 to 0 8 9	0 13 0 to 0 13 6	0 15 0	0 13 6	0 8 0	0 8 0	0 8 6	0 8 0	..	..	0 8 0
					1 0 0	0 14 0			0 9 6	0 11 0	..	0 7 0	0 9 0
	Jan. '44	0 7 6	0 12 0	0 15 0	1 3 6	0 14 0	1 0 0	0 15 0	0 15 6	1 4 0	..	females	0 13 0
		0 9 0						1 2 0		1 2 0		0 7 9	
	Nov. '44	0 10 0	0 12 0	1 2 0	6 0	1 2 0	1 1 0	0 13 0	1 0 0	1 8 0	25 0 0	females	1 3 0
A3	Aug. '39	0 6 6	0 6 6 0 7 6	..	0 10 0	..	..	..	..	0 7 0 0 14 0	..	0 8 6 m.	
	Jan. '44	0 9 6	0 12 0	0 15 0	1 0 6	0 15 0	0 10 0	0 12 0	0 10 0	0 13 0	..	0 11 6 m.	0 1 0
	Nov. '44	0 9 0	0 12 6	1 0 0	1 4 0	1 0 0	0 14 0	0 14 0	0 14 6	1 0 0	25 0 0	0 7 6 w.	0 14 0
A4.		..	..	..	..	..	..	..	..	..	..	..	..
		0 8 0	0 13 0	..	1 0 0	1 0 0	..	..	..	1 10 0 1 6 0	25 0 0	0 8 0	

APPENDIX I.—*contd.*

Mines.	Dhari Unskilled.	Coolie Hand Driller.	Machine Driller.	Sardar	Shot Firer	Pump Khalasi	Compressor Khalasi	Fireman	Carpenter	Durban	Watercarrier	Blacksmith
A5 .. Aug. '39 ..	..	..	..	..	..	..	..	..	..	..	with food	Whenever separate blacksmith is employed he is paid about Re 1.
Jan. '44 ..	..	..	..	..	..	..	..	..	..	..		
Nov. '44 ..	0 12 0	0 14 0	1 2 0	1 0 0	1 0 0	35 0 0	0 10 0	0 12 0	1 8 0	30 0 0 to 45 0 0	15 0 0	
	0 14 0	1 2 0	1 4 0	1 4 0	1 4 0	45 0 0	0 14 0	1 0 0	2 0 0			60 0 0
A6 .. Aug. '39 ..	0 6 9	0 8 0	0 13 0	0 12 0	0 12 0	0 9 0	0 13 0	0 9 0	0 10 0	..	..	0 13 0
	0 9 0	0 9 0		0 14 0	0 14 0							
Jan. '44 ..	0 9 0	0 12 0	..	1 3 0	0 14 0	0 10 0 0 12 0	..	0 12 0	1 6 0	..	0 7 0 m. 0 7 6 w.	0 15 0
Nov. '44 ..	0 10 0	0 12 0	1 3 0	1 6 0	1 0 0	0 15 0	0 13 0	0 14 0	1 8 0	22 8 0	0 8 6 w. 0 10 0 m.	1 2 0
A7 Aug. '39	..	..	..	..	..	..	..	..	..	..	..	..
Jan. '44 ..	..	..	..	..	..	..	..	..	..	..	..	..
Nov. '44 ..	0 7 6 0 12 0	0 15 0 1 3 0	..	1 2 0 1 5 0	1 4 0	..	..	..	..	20 0 0 25 0 0	0 9 0	..
A8 .. Aug. '39 ..	0 5 6	0 7 6	0 10 0	0 9 0	0 8 6	0 8 0	..	0 8 6	0 10 0	..	0 6 0 w.	0 10 0
	0 6 0			0 10 6	0 9 0			0 9 0	0 12 0		0 6 9 m.	
Jan. '44 ..	0 9 0	0 11 6	0 15 0	0 14 0	0 12 0	0 11 0	0 11 0	0 10 6	0 12 0 0 11 6	..	0 8 6 0 11 6 m.	0 13 0
Nov. '44 ..	0 8 6	0 12 0	0 15 6	0 14 0	0 14 6	0 14 0	0 12 6	0 12 0	0 15 0	22 0 0	0 9 0 w.	0 14 0
A9 .. Aug. '39 ..	0 6 9	0 8 0 0 9 0	0 13 0	0 15 0 0 12 0	0 9 0	0 8 0 0 9 6	0 8 6	0 8 6	0 14 0	..	0 7 3	0 11 0
Jan. '44 ..	0 9 3	0 12 0	..	1 0 0	0 13 0	..	..	0 13 0		..	0 6 6	..
Nov. '44 ..	0 9 0	0 14 0	1 3 0	1 5 0	1 0 0	1 0 0	0 13 0	0 13 0	0 15 0	25 0 0	0 5 6 f.	0 14 0

APPENDIX I—*contd.*

Mines.	Dhari Unskilled.	Coolie Hand Driller.	Machine Driller.	Sardar	Shot Firer	Pump Khalasi	Compressor Khalasi	Fireman	Carpenter	Durban	Watercarrier	Blacksmith.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
A10 .. Dec. '40 ..	0 6 0 0 6 6	0 7 6	..	0 11 0	..	0 8 0 0 10 0	..	..	0 14 0 0 8 6	..	0 8 6 m. 0 11 0 m.	0 8 0
Jan. '44 ..	0 9 0	0 12 0	1 0 0	1 2 0	0 15 0 0 12 0	0 13 0	0 11 6	..	1 7 0 0 14 0	..	0 6 6 w.	0 14 0
Nov. '44 ..	0 9 0	0 11 9	1 0 0	1 6 0	1 2 0	0 13 6	0 12 0	0 12 0	1 10 0	25 0 0	0 12 0 m.	1 2 0
A11 .. 1940 ..	0 6 6	0 7 0	..	0 10 0	..	0 10 0	..	0 8 0	0 7 0 1 0 0	..	0 8 6 m.	..
Jan. '44 ..	0 9 0	0 12 0	1 0 0	1 4 0	0 14 0	0 11 0	0 11 0	0 13 0	1 8 0		0 6 6	0 13 6
Nov. '44 ..	0 9 0	0 12 0	1 2 0	1 4 0	1 2 0	0 15 0	0 12 0	0 15 0	1 11 0	25 0 0	0 11 0 m. 0 7 3	0 15 0
A12 .. 1940 ..	0 6 6	0 7 6	..	0 10 0	..	..	..	..	..	..	0 8 6 m.	..
Jan. '44	0 7 0 0 8 6	0 8 0	0 15 0	1 0 0	0 13 0	0 11 0	0 11 0	0 13 0	0 12 0 0 13 0	..	0 10 0 m. 0 6 6 w.	1 0 0
Nov. '44 ..	0 9 0	0 12 0	1 0 0	1 4 0	1 0 0	0 12 0	0 15 0	0 15 0	1 8 0	25 0 0	0 11 0 m. 0 7 6 w.	

APPENDIX I—*contd.*

TABLE 29.

Statement showing average daily employment in certain mica mines, and the average daily earnings of workers employed in important occupations.

Mines.	Period.	Occupation and Class of Coolies.									
		BENIATI (Skilled labour) Machine drillers, Hand japer drillers and shot-firers. (Underground).		DHARI (Unskilled Labour) (Underground)		SARDAR (Underground)		KHUDRA (Underground) Pump Khalasi; Wood cutter; Drill Sharpener.		KHUDRA (Surface Engine Khalasi, Firemen, Blacksmith, etc.	
		Average daily No.	Earnings per head	Average daily No.	Earnings per head	Average daily No.	Earnings per head	Average daily No.	Earnings per head	Average daily No.	Earnings per head.
			Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
B1. Lachmipur Division	Jan. 1944 (17 to 23rd) ..	49	0 10 3	66	0 7 1	7	0 12 1	5	0 10 11	27	0 14 6
	Dec. 1944 (4th to 10th)	56	0 12 2	27	0 8 2	3	0 13 10	3	0 13 1	40	0 11 11
B2. Lachmipur Division	Jan. 1944 (17th to 23rd)	28	0 9 5	22	0 7 5	4	0 11 0	13	0 10 4	12	0 8 0
	Dec. 1944 (4th to 10th)	48	0 12 3	21	0 8 2	3	0 12 11	17	0 13 1	7	0 9 0
B3. Lachmipur Division	Jan. 1944 (17th to 23rd)	29	0 9 4	15	0 6 6	1	0 10 9	8	0 6 9	4	0 10 8
	Dec. 1944 (4th to 10th)	24	0 11 10	6	0 10 3	1	0 14 2	4	0 12 4	5	0 11 6
B4. Dhab Division	Jan. 1944 (16th to 22nd)	27	0 9 7	37	0 6 5	5	0 12 5	10	0 13 1	27	0 10 6
	Dec. 1944 (1st to 8th) ..	15	0 10 5	19	0 7 11	6	0 13 5	10	0 13 4	13	0 10 4
B5. Dhab Division	Jan. 1944 (16th to 22nd)	24	0 10 3	14	0 6 2	4	0 13 4	..	0 0 0	22	0 9 0
	Dec. 1944 (1st to 8th) ..	25	0 10 0	4	0 6 11	3	0 14 0	3	0 12 7	13	0 9 7
B6. Dhab Division	Jan. 1944 (16th to 22nd)	34	0 8 9	18	0 6 7	1	0 12 6	2	0 13 6	4	0 10 2
	Dec. 1944 (1st to 7th) ..	8	0 10 6	4	0 8 3	2	0 13 0	..	0 0 0	4	0 11 7
B7. Dhab Division	Jan. 1944 (14th to 20th)	33	0 8 9	13	0 5 1	3	0 10 11	..	0 0 0	24	0 10 0
	Dec. 1944 (4th to 10th)	24	0 11 9	10	0 7 4	3	1 0 0	3	0 13 11	6	0 12 0
B8. Bhandari Division	Jan. 1944 (17th to 23rd)	26	0 8 5	16	0 6 1	2	0 9 10	5	0 12 3	7	0 7 9
	Dec. 1944 (4th to 10th)	42	0 10 7	6	0 8 1	2	0 11 9	4	0 1 5	5	0 10 11
B9. Suggi Division	Jan. 1944 (20th to 26th)	79	0 10 0	34	0 7 4	4	0 15 1	1	1 3 0	8	0 10 10
	Dec. 1944 (1st to 7th)	28	0 10 11	9	0 9 11	1	1 2 0	1	1 4 0	3	0 10 5
B10. Suggi Division	Jan. 1944 (20th to 26th)	86	0 10 0	61	0 7 5	5	0 13 4	2	1 2 9	14	0 10 9
	Dec. 1944 (1st to 7th) ..	21	0 11 0	3	0 10 11	3	0 14 7	1	1 9 0	17	0 11 5

APPENDIX I—*concld.*

TABLE 30.

Statement of Wages Paid in a Leading Mining Concern.

Class of labour	K.R.F.	1939 Gawan Zone	K.R.F.	1941 Gawan Zone*	K.R.F.	1944 Gawan Zone.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Females	0 4 9	0 3 6	0 5 0		0 8 0	0 6 0
Unskilled (men)	0 6 3	0 4 6	0 6 6		0 11 0	0 9 0
Hand-Drillers	0 8 6	0 6 0	0 9 0		0 15 0	0 10 6
Machine Drillers	0 12 0	0 9 0	0 12 0		1 8 0	1 0 0
Sardars	0 15 6	0 10 0	0 15 9		1 6 0	1 1 6
Shot-firers	0 15 0	0 10 0	0 15 0		1 4 0	0 15 0
Carpenters	0 15 0	0 12 0	0 15 6		1 8 0	1 0 0
Blacksmiths	0 15 0	0 12 0	0 15 6		1 4 0	0 15 0
Pump-khalasis	0 12 0	0 12 0	0 13 0		1 4 0	1 0 0
Firemen	0 10 0	0 8 0	0 10 0		1 0 0	0 14 0

*Data for Gawan Zone for 1941 not available.

APPENDIX II.

MICA FACTORIES.

TABLE 31.

Statement showing the rates of wages paid to men, women and children employed in important occupations in selected mica factories.

Factory.		Cutters	Sorters	Condenser makers	Wrapper makers	Screeners	Packers	Splitters.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
C1.	M	0 9 0	0 12 0	0 12 0	0 10 0	..	0 7 0	0 3 0 to 0 4 6 per seer.
	W	..	..	0 10 0	0 10 0	0 6 0	..	
	C	0 3 6	0 4 6	0 6 6	0 6 6	0 3 0	..	Do.
C2.	M	0 1 3	0 8 0	0 10 0	0 10 0	0 8 0	0 7 0	..
	W	per seer	..	0 10 0	0 10 0	0 5 6	..	0 8 0
	C	Do.	0 5 0	0 6 0	0 6 0	0 3 0	0 4 0	0 3 6
C3.	M	0 8 6	0 9 0	0 9 6	..	0 7 0	0 8 0	..
	W	..	..	0 8 6	..	..	..	0 7 6
	C	0 4 0	0 4	0 6 0	..	0 3 6	..	0 3 9
C4.	M	0 9 0	0 12 0	0 10 0	..	..	0 8 0	..
	W	..	..	0 7 0	..	..	..	..
	C	0 4 0	0 4 0	0 5 6	..	0 3 6	..	..
C5.	M	0 8 6	0 10 0	0 5 0 to 0 8 0	..	..	0 7 6	..
	W	..	..	per seer	..	..	..	0 3 0
	C	0 3 6	0 4 6	on contract	..	0 3 6	0 5 0	0 3 0
C6.	M	..	0 8 0	0 9 6	0 8 6	..	..	0 4 0 per seer
	W	..	..	..	..	..	..	Do.
	C	..	0 3 6	0 6 0	..	0 4 0	..	
C7.	M	..	0 12 0	0 10 6	..	..	..	..
	W	..	..	0 9 0	..	..	..	..
	C	..	0 4 0	0 7 0	..	..	..	..
C8.	M	..	0 12 0	0 10 6	..	..	..	..
	W	..	..	..	..	..	..	..
	C	..	0 4 0	..	..	..	..	..

APPENDIX II—contd.

TABLE 32.

*Table giving the rates of daily wages for men, women and children employed in different occupation in a leading manufacturing concern.**

Abbreviations—
M.—Men.
W.—Women.
C.—Children.
Con.—Condenser.
Ex.—Examiner.

		Basic Wages Rates.			D/A.			Gross Earnings.		
		Max. Rs. A. P.	Min Rs. A. P.	Av. Rs. A. P.	Max. Rs. A. P.	Min. Rs. A. P.	Av. Rs. A. P.	Max. Rs. A. P.	Min. Rs. A. P.	Av. Rs. A. P.
Sorters	M	1 4 0	0 8 0	0 10 3	0 6 0	0 2 6	0 3 0	1 10 0	0 10 6	0 13 3
	C	0 6 0	0 3 6	0 4 3	0 1 9	0 1 0	0 1 3	0 7 9	0 4 6	0 5 6
Sheer Cutter	M	1 0 0	0 7 6	0 9 0	0 4 9	0 2 3	0 2 9	1 4 9	0 9 9	0 11 9
	C	0 6 0	0 3 6	0 4 3	0 1 9	0 1 0	0 1 3	0 7 9	0 4 6	0 5 6
Con. Ex.	M	1 0 0	0 7 0	0 8 3	0 4 9	0 2 0	0 2 6	1 4 9	0 9 9	0 10 9
	C	0 6 0	0 3 6	0 4 3	0 1 9	0 1 0	0 1 3	0 7 9	0 4 6	0 5 6
Con. Splitter	M	1 0 0	0 6 0	0 9 0	0 8 0	0 1 9	0 2 9	1 6 0	0 7 9	0 11 9
	W	0 11 0	0 5 3	0 8 0	0 3 3	0 1 6	0 2 6	0 14 3	0 6 9	0 10 9
	C	0 6 0	0 3 0	0 3 9	0 1 9	0 1 0	0 1 3	0 7 9	0 4 0	0 5 0
Packers	M	0 12 6	0 6 6	0 9 6	0 3 9	0 2 0	0 2 9	1 0 3	0 8 6	0 12 3
	C	0 5 0	0 3 6	0 4 3	0 1 6	0 1 0	0 1 3	0 6 6	0 4 6	0 5 6
Splitters	M	0 6 0	0 4 6	0 5 3	0 1 9	0 1 3	0 1 6	0 7 9	0 5 9	0 6 9
	W	0 6 0	0 4 6	0 5 3	0 1 9	0 1 3	0 1 6	0 7 9	0 5 9	0 6 9
	C	0 4 9	0 3 3	0 4 0	0 1 3	0 1 0	0 1 3	0 6 0	0 4 3	0 5 3
Washer Punchers	M	0 13 0	0 8 6	0 10 9	0 4 0	0 2 6	0 3 3	1 1 0	0 11 0	0 14 0

* Information relating to the period from 1st to 31st October 1944. Kodarma Zone : Number of days worked = 26 Figures supplied by the concern and verified by me.

APPENDIX II—*concld.*

TABLE 33.

Statement showing wage data in factories (supplied by the A. I. T. U. C. and based upon a sample wage survey conducted by the Mica Mazdoor Union).

Year.	Sorters.		Splitters.		Sievers.	
	No. of persons covered.	Wage rates.	No. of persons covered.	Wage rates.	No. of persons covered.	Wage rates.
		Rs. A. P.		Rs. A. P.		Rs. A. P.
1940	1,029	0 6 0	587	0 5 0	324	0 2 6
1941	1,748	0 7 0	328	0 5 6	112	0 3 0
1942	826	0 7 6	195	0 7 0	143	0 3 6
1943	1,193	0 9 6	474	0 8 6	88	0 4 0

APPENDIX III.

TABLE 34.

Prices of Mica paid by the Joint Mica Mission (1944).

BLOCK.

	Clear & S.S.	Fair Std.	Good Std.	Std.	Heavy Std.	Densely Std.	White	Black spotted	Smseharia Dotted.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
100 & UP	75 0 0	60 0 0	50 0 0	35 0 0	21 0 0	17 8 0	..	11 4 0	10 8 0
80 & Up	65 0 0	50 0 0	40 0 0	30 0 0	18 0 0	15 0 0	..	10 4 0	9 8 0
Ex. Ex. Spl.	54 0 0	40 0 0	30 0 0	25 0 0	15 0 0	13 4 0	..	9 0 0	8 8 0
Ex. Spl.	42 0 0	26 0 0	21 8 0	18 0 0	13 4 0	10 0 0	10 0 0	7 12 0	7 4 0
Special	33 0 0	22 8 0	16 8 0	14 8 0	10 8 0	8 8 0	9 0 0	7 0 0	6 4 0
No. 1	28 8 0	19 0 0	14 0 0	11 8 0	9 0 0	7 4 0	8 0 0	6 0 0	5 12 0
No. 2	24 0 0	15 0 0	12 0 0	9 0 0	6 8 0	5 4 0	6 0 0	4 8 0	4 4 0
No. 3	21 0 0	12 8 0	9 8 0	7 0 0	4 10 0	3 8 0	5 0 0	3 8 0	3 4 0
No. 4	17 4 0	10 8 0	7 8 0	5 8 0	3 4 0	2 0 0	..	1 10 0	1 7 0
No. 5	12 8 0	6 8 0	4 8 0	3 0 0	1 14 0	..	..	0 13 0	0 13 0
No. 5½	6 10 0	4 12 0	3 8 0	2 0 0	1 4 0	..	..	0 8 0	..
No. 6	3 4 0	2 0 0	1 8 0	0 14 0	..	..	..	0 6 0	..

	Cond. Films.			Wrappers				Splittings			
	1st Q.	2nd Q.	3rd Q.		Rubby Std.	White	Loose.		B. P.	Dusted L.	Loose.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.	Rs. A. P.
No. 4 ..	15 8 0	10 8 0	..	No. 2 ..	14 8 0	11 0 0	12 0 0	No. 4 ..	5 4 0	3 6 0	..
No. 5 ..	9 0 0	7 0 0	5 8 0	No. 3 ..	11 8 0	9 12 0	9 0 0	No. 4½ ..		2 0 0	..
								No. 5 1st	3 8 0		
No. 5½ ..	6 4 0	4 10 0	3 8 0	No. 4 ..	9 8 0	8 8 0	7 0 0	No. 5½	2 0 0	1 6 0	..
								No. 6 1st	1 5 0	0 14 6	0 12 6
No. 6 ..	3 8 0	2 8 0	..	..	..	..	..	No. 6 2nd	..	..	0 7 6
								No. 6 3rd	..	..	0 5 3

APPENDIX III—*contd.*

TABLE 35.

*Approximate average price per maund, of India Ruby Mica in India, United Kingdom, and U. S. A.**

Clear and slightly stained	1929			1935			1937		
	India	U. K.	U. S. A.	India	U. K.	U. S. A.	India	U. K.	U. S. A.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Special	1,200	1,421	2,343	1,000	..	1,770	950	..	2,774
A1	900	..	1,126	750	..	1,452	825	1,777	2,172
No. 1	630	1,066	1,217	500	820	903	650	1,503	1,850
No. 2	500	902	946	400	710	747	550	1,038	1,522
No. 3	400	874	834	320	615	617	450	1,011	1,125
No. 4	350	669	732	250	414	521	..	656	895
No. 5	188	423	439	150	287	380	..	492	386
No. 6	85	86	225	..	77	122	..	143	241

* Compiled from *Handbook of Mica*, by R. R. Chowdhury (Calcutta, 1939). Cf. *Journal of Scientific and Industrial Research*, October 1943, p. 37.

APPENDIX IV.

TABLE 36.

Production and Export of Indian Mica.*

Year.	Bihar.		Madras.		Rajputana.		Gwalior State.		Mysore State.		Total Production		Total Export.	
	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.	Quantity Cwts.	Value Rs.
1924 ..	28,736	14,49,600	11,273	5,47,348	864	61,941	..	..	15	(a)	40,908 (b)	20,58,917 (b)	..	..
1925 ..	30,210	14,85,876	14,779	6,46,004	718	54,253	120	3,303	163	10,080	45,990	21,99,516	..	..
1926 ..	29,325	15,08,539	11,584	6,43,684	691	56,363	320	10,548	..	..	41,924 (c)	22,19,367 (c)	..	..
1927 ..	31,564	17,44,623	9,546	6,32,986	1,264	67,015	240	7,431	..	..	42,614	24,52,055	..	..
1928 ..	35,143	18,76,426	8,947	4,87,396	882	39,800	140	6,877	..	..	45,112	24,10,499	..	..
1929 ..	42,560	20,77,784	10,194	5,56,030	452	24,169	25	1,776	..	..	53,231	26,59,759	11,14,640	1,03,08,000
1930 ..	40,887	19,92,204	11,348	6,53,761	492	23,021	..	..	..	..	52,727	26,68,986	74,008	67,59,000
1931 ..	31,720	16,09,720	6,958	3,52,030	285	15,884	..	..	..	..	38,963	20,37,634	50,368	39,36,000
1932 ..	24,097	10,35,466	8,369	3,89,925	247	10,010	..	..	..	..	32,713	14,35,401	40,466	31,52,000
1933 ..	32,074	12,59,180	8,005	4,09,737	396	13,128	..	..	..	..	41,075	16,82,045	65,718	44,74,000
1934 ..	40,979	16,85,266	9,189	3,76,071	538	14,262	..	..	..	..	56,706	20,76,599	1,04,502	69,01,000
1935 ..	48,674	21,38,731	9,536	3,98,014	544	15,867	..	..	..	..	58,754	25,52,612	1,66,649	83,49,000
1936 ..	71,738	27,00,147	13,742	5,10,971	1,591	41,232	..	..	..	..	87,071	32,52,350	1,79,594	94,06,000
1937 ..	85,978	31,70,933	15,834	6,66,242	2,814	1,12,506	12	(a)	20	600	1,04,658	39,50281	2,93,971	1,48,40,000
1938 ..	84,235	34,12,315	23,155	6,27,339	14,899	1,62,084	280	(a)	600	2,895	1,23,169	42,04,633	1,61,844	1,14,12,000
1939 ..	85,662	38,79,280	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	1,27,238	1,52,54,621
1940 ..	84,290	43,72,256	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	1,24,687	1,09,32,741
1941 ..	128,954	75,63,000	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	2,02,751	2,65,47,940
1942 ..	121,774	83,61,724	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	1,48,121	2,53,42,405

*Compiled from the *Records, Geological Survey of India ;* 1930, *64*, 243 ; 1936, *70*, 248 ; 1936, *71*, 266 ; 1938, *73*, 344 1939, *74*, 324 and *Statistical Abstract for British India, 1929-1938*.

Detailed figures for production after 1938 are not available. Total production during 1939 and 1940 was 139,758 and 150,349 Cwts. respectively.

(a) Not reported.

(b) includes 20 Cwts. of mica valued at Rs. 28 from Delhi (?) in 1924.

(c) includes 4 Cwts. of mica valued at Rs. 233 produced from Bengal in 1926.

(d) Figures not available.

APPENDIX V.

A Note on the Estimated Total Employment in the Mica Industry.

The Mica mining and factory industries appear to be subject to considerable fluctuations from year to year according to the vagaries of international demand. In this respect, the industry compares closely with the shellac industry which also has an international market, whose product is similarly a key material used almost in identical industries, and for which India holds an equally strong monopolistic position. Neither in regard to the mining section nor in regard to the factory section, however, unfortunately are accurate figures available to show the precise extent of employment. Whereas in the mining section, the *uparchalla* workings are a statistical *terra incognita*, the position is identical in regard to domestic splitting which forms part of the manufacturing section. Moreover, the Factories Act does not apply to the mica factories and hence detailed statistics of factory labour are not available. In the following two tables we have attempted to present such data as are available and as can be estimated within a range of accuracy. It would appear that the total employment in mines and *uparchallas* throughout India in 1943 was probably in the neighbourhood of 113,810 ; and total employment in factories and homes was nearabout 140,000. This gives us an all-India total of 253,810 or roughly 2½ lakhs. As regards the dependants, we may multiply the total by 2, assuming 1 dependant per worker. This low ratio is necessary as many of the dependants ordinarily so called are often themselves workers. If we further include the clerical staff, supervisory staff, *durbans*, cartmen, dealers, dealers' men, etc., we get a further figure of 10,000. If we assume they have 4 dependants each, we get a total 50,000 in addition to 500,000 dependant on the mining and manufacturing sections, thus making a grand total of 550,000 people.

Table 38, in this Appendix gives the average daily employment in mica mines under the scope of the Indian Mines Act (in British India only). Table 38 gives the estimated employment in the mica industry throughout India. Figures for 1944 are not available, but there is reason to believe that employment in recent months has fallen somewhat seriously.

TABLE 37.

Estimated Employment in the Mica Industry.

Area		1939	1943
Mining.			
Bihar	Mines	23,896	46,431
	Uparchallas	20,000	35,000
Madras	Mines	6,879	12,379
	Uparchallas	4,000	6,000
Rajputana (Ajmer-Merwara, Udaipur & Jaipur)	Mines	3,000	10,000
	Uparchallas	1,500	5,000
Total Mining		59,275	113,810
Manufacturing.			
Bihar	Factories	18,000	35,000
	Dom. Sec.	100,000	100,000
Madras	Factories	4,000	6,000
	Dom. Sec.	2,000	4,000
Rajputana	Factories	..	4,000
	Dom. Sec.	..	1,000
		124,000	140,000

TABLE 37.

Table showing the average daily employment in the mica mines under the scope of the Indian Mines Act.

Year	Bihar		Madras		Rajputana (Ajmer-Merwara)		Other areas		Total		Grand Total
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
1938	22,368	990	4,065	2,117	512	107	..	..	26,945	3,214	30,159
1939	23,124	772	4,606	2,273	1,019	250	..	..	28,816	3,295	32,111
1940	28,090	779	4,401	1,995	1,033	299	26	18	33,550	3,091	36,641
1941	37,522	1,063	4,458	2,188	2,484	1,193	..	..	44,464	4,444	48,908
1942	42,823	1,132	5,999	3,315	2,513	1,084	..	..	51,360	5,531	56,891
1943	44,535	1,896	7,463	3,916	2,691	935	24	..	54,713	6,747	61,460

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LABOUR INVESTIGATION COMMITTEE
GOVERNMENT OF INDIA

REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE MINERAL OIL INDUSTRY IN INDIA

Cx p.52

BY

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Chairman, Labour Investigation Committee.

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13). Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi making Cigar and Cigarette. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance, of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned, it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North-West Frontier Province where none of the industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE, *Chairman.*

S. R. DESHPANDE
AHMAD MUKHTAR } *Members.*
B. P. ADARKAR

TEJA SINGH SAHNI,
Secretary.

CHAPTER I.—INTRODUCTION.

India gets its Mineral Oil from two areas, *viz.*, Digboi oilfield in Assam belonging to the Assam Oil Company and Khaur and Dhulian oil fields in the Attock district of the Punjab, belonging to the Attock Oil Company. Fresh sources of oil have been recently located in the Punjab, not far from Dhulian, and the Attock Oil Company has four oilfields in that area, for prospecting purposes. Oil was actually obtained from one of these oilfields in 1944. The Assam Oil Company's refinery is situated just on the oilfield at Digboi, while the Attock Oil Company's refinery is at Rawalpindi at a distance of 56 and 67 miles from Khaur and Dhulian respectively. Oil from these fields is brought in a pipe line to the refinery at Rawalpindi.

The Assam Oil Company is the older as well as the bigger of the two companies. It was registered in 1909, while the other Company was registered in 1913. The management of the Assam Oil Company was taken over by the Burma Oil Company in January 1921. The Attock Oil Company, though under a different management, utilizes the marketing agency of the Burma Oil Company.

Before the war, the average production of petroleum in India for the years 1929 to 1938 was nearly 66 million gallons, out of which the Assam Oil fields were responsible for about 57 million gallons. The Dhulian oil field is much bigger than the Khaur one and produced over 14 million gallons of oil in 1944 as against nearly one million of Khaur. The outfields at Joya Mair also produced about one million gallons of oil in that year. The total production of mineral oil, both in Assam and the Punjab, in 1944 is estimated at about 83 million gallons and the total consumption of the country at about 400 million gallons.

The following table shows the number of persons employed in this industry, excluding supervisory staff getting over Rs. 200 p.m. and clerical staff, in January 1945 :—

TABLE 1.

Employment in Mineral Oil Industry in January, 1945.

	Oilfield	Refinery	Tin factory at Tinsukia	Total
Assam Oil Co.	5,721	2,192	793	8,706
Attock Oil Co.	1,643	1,408	..	3,051
			Grand Total—	11,757.

The present employment in the Assam Oilfields is stated by the Company to be inflated because of the stepping up of the scale of its operations to meet the war needs. Much of the labour force is unskilled, and considerable reduction in number is likely to occur in the post-war period. The rate at which this reduction will take place will depend on the easing off of the demand for oil and on the ease with which the Company can obtain mechanical equipment. The reduction, however, is not likely to be fast and may not happen from discharging large numbers. The Company's view is that the process is likely to be its ceasing to replace those who leave its employment upon retirement, ill health or from personal choice. The Attock Oil Company is suffering from a shortage of labour and its normal employment in the post-war period may be put in the neighbourhood of about 3,500 in view of the work that is taking place in the outfields. On the whole, the employment figure in the industry in post-war period may be put at about 10,000.

The refineries, workshops and tin factory are subject to the Factories Act, while the bulk of the workers employed in the oil fields are subject to no statutory control in the matter of hours and health and to few statutory regulations in respect of safety. Oilfields are given complete exemption from the operation of the Indian Mines Act which would otherwise apply to them. The following observations of the Whitley Commission in this connection may

be quoted : " We are of opinion that the protection of the law in regard to rest days hours, health and safety should be extended to workers on the oil-fields. We also think that labour statistics analogous to those for factories and mines should be compiled and published. We therefore recommend that conditions on the oilfields be examined by Government with a view to determining whether the end can be achieved by modifying the present exemption and applying appropriate provisions of the Mines Act, or whether separate legislation should be passed for the regulation of hours, rest days, safety and health on oilfield*." Though the recommendation was accepted in principle by the Government of India, no action has yet been taken to implement it.

The present survey deals with labour conditions both in the Assam and the Punjab oilfields. I did the investigation myself in Assam, while Mr. Mohd Shafi, Supervisor, helped in the collection of data in the Punjab. The Managements of the two Companies rendered all possible help.

CHAPTER II.—ASSAM.

The Assam Oil Company has its oilfields and refinery at Digboi and its tin factory at Tinsukia which is a few miles from Digboi.

Employment.

The total number of workers, excluding supervisory staff getting over Rs. 200 p.m. and clerical staff employed in this Company in December of 1938 and of subsequent years is given below :—

TABLE 2.

Employment in the Assam Oil Co., 1938-1944.

Year	Oilfields	Refinery	Tinsukia	Total
1938.				
Men	3,437	1,437	545	5,419
Women	6	..	..	6
Children	4	2	2	8
Total ..	3,447	1,439	547	5,433
1939. Complete figures are not available on account of the strike.				
1940.				
Men	3,521	1,445	353	5,319
Women	11	..	..	11
Children	22	6	2	30
Total ..	3,554	1,451	355	5,360
1941.				
Men	3,723	1,277	383	5,383
Women	12	..	..	12
Children	24	2	2	28
Total ..	3,759	1,279	385	5,423
1942.				
Men	4,507	1,651	774	6,932
Women	5	..	..	5
Children	32	4	2	38
Total ..	4,544	1,655	776	6,975
1943.				
Men	4,948	1,755	1,068	7,771
Women	19	..	..	19
Children	38	7	1	46
Total ..	5,005	1,762	1,069	7,836
1944.				
Men	5,335	2,117	1,105	8,557
Women	27	..	..	27
Children	47	9	..	56
Total ..	5,409	2,126	1,105	8,640

* Report of the Royal Commission on Labour in India, p. 112.

All the above people are employed and paid directly by the Company and are time-rated. No women or children are employed in the oil production or refining processes. The few women employed are school mistresses, chowkidaranies in the girls' schools, nurses in the hospital and sweepers working in the purdah maternity hospital. The children are office boys between the ages of 14 to 18. The volume of employment has considerably increased in the last three years.

Contract Labour.—In addition, there is a certain amount of labour employed by contractors for jobs such as building, roadwork, jungle clearing, etc. The average number of contract labour employed in 1944 was 1,426. The Company has no responsibility about their continuity of service and their pay, but the rates which the Company pays to contractors include specifically a basic wage of Re. 0-12-0 and Re. 0-10-0 a day for male and female labourer respectively. The contract labour gets the benefit of the Company's grain shop and hospital and also of schools, if accommodation is available.

Recruitment.—Recruitment is entirely in the hands of the Labour Superintendent which post was created in 1930. The notice board outside the Labour Bureau shows the types of work for which there are vacancies. Unskilled and semi-skilled men are selected from those who present themselves at the Bureau on the dates notified on the board for selection. Men selected are placed on the waiting list and are required to report at the Bureau every fortnight. Men not reporting are assumed to have found other work and their names are struck off. Those who report are told their places on the waiting list and when they get near the top, they are told to report daily, if they do not wish to lose an opportunity of obtaining work. As regards skilled labour, it is the Company's policy to meet its requirements primarily from youths completing apprenticeship in its own workshops. Other vacancies are filled by promoting improvers (artisan helpers) who pass the required trade tests or from skilled men who come to Digboi voluntarily seeking work and who pass the required trade tests. The only class which is given priority for employment are sons of workmen who have service of over 10 years.

All candidates are required to pass a medical examination by the Company's Medical Officer. If they are found fit and if the Police report on their antecedents is satisfactory, they are finger printed and given a photopass and registered number. This number remains constant throughout their service. Service cards giving details of engagement, occupation, pay, transfers, fines, suspension, discharge, provident fund, type of quarters, leave, sickness, injury, etc., are maintained for all employees.

The workers are mainly drawn from Assam, Eastern Bengal, Nepal and, to a lesser degree, from U.P. and the Punjab. The percentage of people from Assam is 22.

Pool System.—The labour pool is designed to avoid the temporary engagement and discharge of unskilled men in different departments by meeting their fluctuating needs for unskilled labour from a common pool of labourers. It is under the direct control of the Labour Superintendent who maintains the strength of the pool at such a level as will meet all probable departmental requirements and at the same time cause no underemployment to the men in the pool. Pool men are permanent employees of the Company (after they have completed their normal probationary period) and by working in different departments gain an opportunity of learning different types of work. Permanent vacancies in a department are frequently met by transferring men from the pool who have had experience in that department, thereby giving pool men opportunities of advancement.

Classification of Workers.—Employees are classified as permanent, substitute (in place of men who are on leave or ill), temporary (for strictly tem-

porary jobs) and probationary (men engaged for permanent vacancies are normally on probation for three months). In December 1944, the percentage of temporary, substitute and probationary men to the total employed was 19. As far as wages, war time allowances, houses or house allowance, food concession, medical facilities, sick pay and injury pay are concerned, all classes have the same privileges. All men who complete a year's continuous service qualify for a month's notice or pay in lieu thereof, if discharged on account of staff reduction or for medical reasons, and for leave under the Company's rules.

Length of Service.—The following table shows the length of service of all the employees in this Company as on 1st August 1944 :—

TABLE 3.

Length of Service of Employees.

Period of Service	No. of workers	Percent of total
Under 1 year	1,754	19
Between 1 and 5 years	5,803	62
Between 5 and 10 years	920	10
Over 10 years	746	8

Employees under five years' service total 82 per cent. This situation has arisen out of the fact that the Company lost a large number of its older workmen in 1939 owing to a strike and in 1942-1943 owing to war scares in Assam.

Age Composition.—The following table shows the age composition of the employees in 1943 :—

TABLE 4.

Age Composition of Employees.

Age	No. of workers	Percent of total
Under 16 years	13	..
16 to 18 ,, ...	71	1
19 to 25 ,, ...	2,312	27
26 to 30 ,, ...	2,471	29
31 to 35 ,, ...	1,560	19
36 to 40 ,, ...	1,273	15
41 to 45 ,, ...	608	7
46 to 50 ,, ...	213	2
51 to 55 ,, ...	44	..
56 to 60 ,, ...	15	..
Over 60 ,, ...	1	..

Majority of the employees are between the ages of 19 and 30. The greater proportion of labour enters employment between the ages of 19 and 25 and the usual age of retirement is 50. Generally workers are not engaged under the age of 18 for the normal type of work. Those below 18 are employed only as office boys and apprentices.

Apprenticeship.—The Company has a system of apprenticeship for artisans and supervisory posts. For apprenticeship for artisans, candidates must have passed at least the Middle English examination and should be between the years of 15 and 22. They are selected from the following groups :—

1. Employees' sons educated in the Company's schools.
2. Sons of employees of over 10 years.
3. Students from Jorhat and Surma Valley Technical Schools.
4. Others, preference being given to suitable candidates born in Assam.

Apprenticeship normally entails a course lasting five years, but training in Technical Schools is accepted as equivalent to two to three years' apprenticeship dependent on whether the candidate has passed out in the 2nd or 1st division. Wages in the 1st year are 12 annas a day and they rise to Rs. 1-4-0 in the 5th year by an annual increment of two annas.

On completion of apprenticeship, an apprentice may choose to leave the Company's service or may be offered a skilled job on an initial pay of not less than Rs. 1-8-0 and not more than Rs. 2-4-0 a day according to his skill. His period of apprenticeship is counted towards service if he is engaged. Attendance at apprentice night schools is compulsory for all apprentices. There are 150 apprentices under training at present.

Labour Turnover.—The following table shows the labour turnover for the years 1938 and 1943 :—

TABLE 5.

Labour Turnover in 1938 *and* 1943.

Year.	Average daily No. of workers (including clerical staff)	Total Separations							
		Permanent			Temporary			Total.	Percent. of total
		Retirement	Dismissal	Voluntary	Retirement	Dismissal	Voluntary		
1938.. ..	6,112	125	281	75	*Nil*	627	..	1,108	18
1943.. ..	8,834	1	274	1,715	*Nil*	401	..	2,391	28

The figures of turnover for both the years have been inflated by the abnormally large number of dismissals. The figure 274 under dismissal (permanent) in 1943 includes 69 employees discharged for medical unfitness. War scares in 1943 have been also responsible for the high percentage of turnover in that year.

Absenteeism.—The following table shows the percentage of absenteeism in 1938, 1943 and 1944 :—

TABLE 6.

Figures of Absenteeism in 1938, 1943 *and* 1944.

Year	Daily average No. of workers who pass through Time Offices	Average No. of absentees	Percent. of total
1938	4,157	27	0·7
1943	5,074	169	3
1944	5,475	202	4

The following table shows the comparative absenteeism between the day shifts and night shifts for November 1944 separately for oilfields and refinery :—

TABLE 7.

Comparative Absenteeism between day shifts and night shifts in November, 1944.

Department	Day Shifts			Night Shifts		
	Workers	Absentees	Percent of total.	Workers	Absentees	Percent of total
Oilfields	3,511	54	..	355	21	..
Refinery	1,737	48	..	163	7	..
Total ..	5,248	102	1·9	518	28	5·4

Both the above tables do not include absenteeism due to sickness and leave. There was practically no absenteeism in the pre-war year of 1938. The increase in absenteeism since then is explained by the Company as follows :—

" There is little doubt that men's earnings were high enough for them to take a day or days off without feeling a financial pinch. Further, the scarcity of consumer goods gave few opportunities to the workman to convert his earnings (surplus to the cost of necessities) into desired articles, so there was little incitement to work in order to get possessions. Again, the heavy, turnover of our labour from the 1939 strike and through the ' war fright ' occasions, has resulted in our having a large proportion of men with short experience of industrial conditions and they possibly find regular employment irksome at times."

Standing Orders.—It appears that the conditions of employment are set forth in the Company's various notifications and bulletins, but no regular Standing Orders governing relationship between the employer and the employees have been yet drawn up, though it was suggested by the Court of Enquiry of 1938 that steps should be taken to codify in some way important notifications bearing on conditions of service. It is highly necessary that the Company which employs a large labour force should have a definite set of Standing Orders.

Labour Officer.—The Company has a highly paid European Labour Superintendent whose duties include all engagements as well as the numerous tasks ordinarily undertaken by a welfare officer. From the Company's point of view, the Superintendent is the representative of the workers and it is his business to find out their needs and aspirations and endeavour to obtain justice for them.

Wages and Earnings.

The employees are divided into four main categories : (a) Artisans, (b) Skilled, (c) unskilled and semi-skilled, and (d) Miscellaneous, *i.e.*, drilling and other groups.

The artisans are divided into five grades as follows :—

Grades.				
A.	B.	C.	D.	E.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1 2 0	1 8 0	2 0 0	2 8 0	3 8 0
1 4 0	1 10 0	2 2 0	2 12 0	4 0 0
1 6 0	1 12 0	2 4 0	3 0 0	..

Within the grades, dependent on satisfactory service, they are ordinarily given increments every two years. This may be accelerated for specially good work. Promotion from grade to grade is dependent on the passing of trade tests and on there being a vacancy in the grade above. Night schools and artisans' classes are provided to help them pass these tests. It was complained that trade tests were not taken when asked for by the artisans. It is understood that a test is taken only when the departmental head is satisfied that the artisan has a reasonable chance of passing it.

Skilled Oil Workers.—These are employees whose jobs are more or less peculiar to this industry. Each category has a minimum and maximum rate of pay, the lowest rate being Rs. 1-2-0 and the highest Rs. 4 a day. The spread between the two rates varies from two to eight annas in most cases and increments within these limits are ordinarily given every two years. Increments may be accelerated in cases of marked ability and keenness.

Unskilled and Semi-skilled Men.—These are divided into five classes :—

Class I	..	..	Re.	0	12	0	0 1 0 (2)	0	13	0	0 1 0 (1)	0 14 0
Class II	..	..	Re.	0	12	0	0 2 0 (3)	0	14	0	0 2 0 (1)	1 0 0
Class III	..	..	Re.	0	14	0	0 2 0 (2)	1	0	0		
Class IV	..	..	Re.	0	14	0	0 2 0 (1)	1	0	0	0 2 0 (1)	1 2 0
Class V	..	..	Re.	1	0	0	0 2 0 (1)	1	2	0		

These increments are again dependent on satisfactory service and are accelerated for good work.

An unskilled worker generally remains an unskilled worker and there is no trade test for him. Some of the semi-skilled workers can get into the skilled categories by experience after passing trade tests. If a man leaves the Company's service but is re-engaged within two years, his previous service is counted in the class in which he is re-engaged. Majority of the unskilled and semi-skilled men are in Classes II and III. Time-scale has been introduced in the case of semi-skilled and unskilled workers since 1939 on the recommendation of the Court of Enquiry appointed by the Assam Government in 1938 under Section 3 of the Trade Disputes Act, 1929.

Miscellaneous.—Under this category come apprentices (whose wage rates have been given before), children under 18 other than apprentices, unskilled female employees and drilling and other gangs. Children over 14 other than apprentices start on 8 annas a day and an additional anna is given for every additional year. Unskilled female employees get Re. 0-8-0 a day but are eligible for increment up to Re. 0-10-0 a day. They generally get Re. 0-9-0 after two years and Re. 0-10-0 after three years. The drilling and other gangmen have fixed rates generally within the limits of Rs. 1-2-0 to Rs. 2. Rigmen on probation start with As. 12 and reach Rs. 1-2-0 after two years' service.

Analysis of Basic Wages.—As the mineral oil industry in Assam has three distinct sections, oilfields and refinery at Digboi and the tinning and packing factory at Tinsukia, information on the basic wages of workers was obtained in respect of these three sections separately. In so far as there has been no change in basic wages since 1939, the information obtained in respect of basic wages has a long period value as compared with the ephemeral character of other items which supplement basic wages and constitute the total earnings of workers in this industry.

The following table shows the frequency distribution of workers employed in each of the three sections of the industry, separately and jointly, in specified groups of daily basic wages. The table covers 8,706 workers of whom 5,721 were employed on the fields, 2,192 in the refinery and 793 in the tinning factory. The information relates to the month of January 1945.

TABLE 8.

Frequency distribution in specified groups of daily basic wages of workers employed by the Assam Oil Company Limited in January 1945.

Section		Less than As. 8.	Between As. 8 and As. 12	Between As. 12 and Re. 1	Between Re. 1 and Rs. 1-4-0	Between Rs. 1-4-0 and Rs. 1-8-0	Between Rs. 1-8-0 and Rs. 1-12-0	Between Rs. 1-12-0 and Rs. 2	Between Rs. 2 and Rs. 2-4-0	Between Rs. 2-4 and Rs. 2-8-0	Between Rs. 2-8 and Rs. 3	Between Rs. 3 and Rs. 3-8-0	Rs. 3-8-0 and over	Total
Oilfields	No. of workers ..	..	76	2,865	1,233	549	404	118	181	112	115	29	39	5,721
	Per cent. of total ..	..	1·3	50·1	21·6	9·6	7·1	2·1	3·2	1·9	1·9	·5	·7	100
Refinery	No. of workers ..	..	11	1,006	509	197	187	88	74	47	41	20	12	2,192
	Per cent. of total ..	..	·5	45·9	23·2	8·9	8·6	4·1	3·3	2·1	1·9	1·0	·6	100
Tinning and packing factory at Tinsukia.	No. of workers ..	..	..	273	369	64	48	8	21	7	1	1	1	793
	Per cent. of total ..	..	..	34·4	46·5	8·0	6·0	1·0	2·8	1·0	·1	·1	·1	100
Total	No. of workers ..	..	87	4,144	2,111	810	639	214	276	166	157	50	52	8,706
	Percent. of total ..	..	1·0	47·7	24·2	9·3	7 3	2·5	3·2	1·9	1·8	·5	·5	100

The modal wage group in the three sections and for the whole concern is shown in the following table :—

TABLE 9.

Modal wage group in January 1945.

Section	Modal group	Percent of total
Oilfields	Between As. 12 and Re. 1	50·1
Refinery	Between As. 12 and Re. 1	45·9
Tinning factory	Between Re. 1 and Rs. 1-4-0	46·5
All sections	Between As. 12 and Re. 1	47·7

Items which enhance the cash income of workers were war dearness allowance, temporary emergency allowance, absent dependents allowance and house allowance. The last is payable to those who are not allotted any quarters by the Company.

The approximate total monthly earnings of the lowest paid worker (with full attendance) were as follows :—

	Basic wages As. 12 per day. 26 days' attendance—no over-time. Rs. A. P.
Basic wages	19 8 0
House allowance (if admissible)	1 15 0
Temporary emergency allowance	1 15 0
War dearness allowance	16 8 0
Absent dependents' allowance	9 0 0
Total ..	48 14 0

The Company also supplies to its employees foodstuffs at concession prices. The approximate *per capita* cost of the concession to the Company has been computed at Rs. 11|- per month. In assessing the real income of workers, it is necessary to take into account the bearing of food concessions on their money income.

War Dearness Allowance.—In May 1940, a war dearness allowance of Rs. 3|- per month was granted. It now stands at Rs. 16-8-0 a month to each employee earning less than Rs. 201|- a month. It is based on the cost of living index prepared by the Company for Digboi. The cost of living is controlled since August 1943 by pegged prices at 1940 level in the Company's stores which sells a large range of commodities to the employees. The dearness allowance is tied to attendance and reduction is made in the case of absence without leave for one or more days as shown in the table below :—

TABLE 10.

War Dearness Allowance.

No. of week days absent from work per month	War dearness allowance per month Rs. A. P.
Nil	16 8 0
One	14 7 0
Two	12 10 0
Three	11 1 0
Four	9 11 0
Five	8 8 0
Six	7 7 0
Over six days	Nil

This is a rather unusual method of giving dearness allowance and even if legal, is hardly fair to the workers. Dearness allowance is meant to cover, at least partially, the increase in the cost of living due to war and should not be linked with attendance. The recognised way of encouraging regular attendance is grant of an attendance bonus.

Temporary Emergency Allowance.—Since June 1942, the Company is granting to employees earning less than Rs. 201|- a month who work not less than 25 days in a month (excluding sickness certified by the Company's doctors) a temporary emergency allowance equivalent to 10 per cent. of earned basic wages. Those who work less than 25 days in a month and have no medical reason receive one anna in the rupee calculated on the nearset rupee of wages. This allowance is given as Digboi is in war zone.

Absent Dependents' Allowance.—Since June 1944, all employees drawing less than Rs. 201|- a month and who did not draw four full rations from the Company's rice stores were given an Absent Dependents' Allowance ; Rs. 5|- to employees whose homes were in Chittagong and South Bengal and Rs. 3|- to all others in respect of each full ration less than four drawn from the rice stores. Since 1-11-1944, this allowance has been Rs. 3|- for all employees for each full ration less than four drawn from the rice stores. This allowance was introduced when it became evident that Government's food distribution and rationing schemes had not developed to the degree when the workers' families in their own villages could depend on getting rations at the Government controlled price. As and when Government control brings grain prices for all to reasonable levels, this special allowance will be discontinued. This allowance too is linked with attendance as shown in the following table :—

TABLE 11.

Absent Dependents' Allowance.

No. of week days absent from work per month	Rations *not* drawn in Digboi											
	1			1½			2			2½			3		
	(per month).											
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Nil	3	0	0	4	8	0	6	0	0	7	8	0	9	0	0
One	2	10	0	3	15	0	5	4	0	6	9	0	7	14	0
Two	2	5	0	3	7	0	4	10	0	5	12	0	6	14	0
Three	2	0	0	3	0	0	4	1	0	5	1	0	6	0	0
Four	1	12	0	2	10	0	3	4	0	4	7	0	5	4	0
Five	1	9	0	2	5	0	3	2	0	3	14	0	4	10	0
Six	1	6	0	2	0	0	2	12	0	3	6	0	4	1	0
Over six days	*Nil*														

These are all war-time allowances. No bonus of any sort is given by the Company, though the Court of Enquiry of 1938 had suggested the introduction of an " efficiency bonus ".

Fine Fund.—There is a fine fund. The present amount outstanding in it is Rs. 297-3-9. The General Manager is in charge of its disposal and it is used for welfare work amongst employees. In recent years the fines realised have been so small that no payments have been made from this fund.

Warning and Suspension.—Oral warning is given for minor faults. For serious faults a written warning is recorded on the Service Card but the worker's signature is not taken, though the proceedings are held by the Departmental Head in the presence of two witnesses and the worker is heard. He can appeal to the General Manager within 7 days and the Labour Superintendent hears the appeal on behalf of the General Manager. The recorded warning has the effect of postponing increment but such cases are reviewed periodically. Two warnings are generally followed by a discharge.

Suspension up to a maximum of four days is sometimes given as punishment to workers who have committed serious offences or are continual offenders. Workmen are not sent on forced leave as a disciplinary measure.

Wage Period.—The wage period is one month. All employees are paid within the first ten days of the following month.

Holidays and leave.—Sundays are normally closed days in the service departments, *i.e.*, Engineering, Workshops, Transport, etc., but certain processes in the refinery are necessarily continuous and employees are required to work on Sundays and two days' holidays are given to such men in the month. In the oilfields, drilling and producing is continuous and certain men are required to work 30 days in the month but any time worked by an employee on Sundays is paid at time and a half.

Men on daily rates (*i.e.*, everybody except the supervisory staff), are entitled for each year's service to 14 days' leave with pay and 28 days' leave without pay. In addition to this, 3 religious holidays with pay are granted every year. Double pay is given when they are required to work on any of the recognised religious holidays.

Working Conditions.

Shifts and Hours of work.—The normal working week is 45½ hours except in the case of shift workers who work 48 hours in the refinery and 56 hours in the oilfields. 5½ hours work on Saturday constitutes a day's work and qualifies for a full day's pay. Various shifts, none exceeding 8 hours per day, are worked. Many men are not shift workers but work from 6-30 a.m. to 11 a.m. and from 12-30 p.m. to 4 p.m.

In the refinery, besides these day workers, there are continuous process shifts working 6-30 to 2-30, 2-30 to 10-30 and 10-30 to 6-30 ; certain shifts work 7 to 3, 3 to 11 and 11 to 7. In the oilfields, besides the usual day workers, drilling and producing departments (where work is continuous) have shifts working 6 to 2, 2 to 10, and 10 to 6 or 6-30 to 2-30, 2-30 to 10-30 and 10-30 to 6-30 or 7 to 3, 3 to 11, 11 to 7 or 7-30 to 3-30, 3-30 to 11-30 and 11-30 to 7-30 and there are a few men on 10 a.m. to 6 p.m. and a few on 8 a.m to 4 p.m. This staggering of shifts in the fields in different departments principally arises from considerations of :—

(a) transport of workers to the more distant points,

(b) steam demands (from centralised supply at different times).

725 persons in the refinery and 1,190 persons in the oilfields are employed on continuous processes. Such workers in the refinery get one day's rest in every 14 days of work, but on oilfields (drilling and sections connected with drilling) they do not get any regular rest days but can take two days' casual leave per month.

Time-keeping godown gates are closed five minutes after the shift starts and they are opened again after 20 minutes. This means that if a man is late by more than five minutes, he loses ½ hour's pay. If he comes later than ½ hour, he is not taken on work, unless his department particularly wants him. Such cases are very few.

All shift workers including those on continuous processes in the refinery and on the oilfields get a rest period of half-an-hour after 4½ hours' work. In the summer, for the general group of day workers the one and a half hour break in the middle of the day is extended to two hours. In other words, the hours of work in summer are 6 a.m. to 10-30 a.m. and then 12-30 p.m. to 4 p.m.

Overtime.—Any hours in excess of 8 hours (or 5½ hours on Saturday) are shown as overtime but are paid as straight time unless :—

(a) the hours worked on any one day exceed 10 hours,

(b) the hours worked in any one week (Monday to Saturday inclusive) exceed 48 hours in which cases time and half is paid.

Overtime is not compulsory. All overtime is recorded in the Time-office and can be inspected any time.

Factory Conditions.—Workshop and plant buildings are modern and were designed to provide good working conditions. Lighting is both natural and artificial ; electric light is used freely where necessary. In the workshops and in the motor garage the bluish " day-light lighting " is in use. Digboi does not suffer from the high temperatures of Central India but most of the Company's buildings are high and airy and excessive heat is not a problem.

No shelters are provided for employees during rest hours. Small smoking huts for shift workers are provided in both the refinery and the oilfields at places where it is safe for them to smoke. Uniform and equipment as prescribed by the Ethyl Corporation is worn by men when mixing lead with petrol. Clothes are soiled by mud and dirty water in drilling but no extra allowance is given for it.

Housing.

The Company houses 47 per cent. of its employees in Digboi and 25 per cent. in Tinsukia. Construction of additional quarters in Tinsukia has been suspended for the duration of the war. The allotment of houses is based on seniority of service and rate of pay. No rent is charged and sub-letting is forbidden and does not occur. Following are the types of houses built by the Company for its operatives :—

Type of quarter	No. of quarters of each type	Description	Latrine	To whom allotted
C. E. 2	2,024	Inside kitchen 10′ × 6′ 1 room 10′ × 12′ Front verandah Outside latrine	330 seats	Bachelor coolies and mistries from As. 12 per day.
C. E. 43	205	1 room 10′ × 12′ 1 store room 5′ × 5′ 1 kitchen 5′ × 5′ 1 inside latrine 1 washing platform Inside and outside verandah.	197 seats	Junior mistries from Rs. 1-4-0 to Rs. 2 per day.
C. E. 44	30	2 rooms :—12′ × 10′ and 12′ × 5′ 1 kitchen 5′ × 5′ 1 fuel shed, small verandah.	30 seats	Junior literate mistries from Rs. 1-4-0 to Rs. 2 per day.
C. E. 45	24	2 rooms —12′ × 10′ and 12′ × 6′ 1 bath room 1 kitchen 6 × 6′ 1 fuel shed.	24 seats	Junior mistries from Rs. 1-4-0 per day.
C. E. 125	218	2 rooms :—12′ × 8′ and 12′ × 10′ 1 kitchen, 6 × 7′ 1 latrine 1 washing platform.	218 seats	Senior mistries from Rs. 2/- per day.
C. E. 2	27	2 rooms :—12′ × 10′ and 12′ × 16′ 1 kitchen 1 latrine 1 fuel shed 1 bath room.	27 seats	Senior men from Rs. 150/-p.m. and above.
C. E. 8	24	3 rooms :—12′ × 16′, 12 × 6′ and 12′ × 10′ 1 kitchen 1 latrine 1 fuel shed 1 bath room.	24 seats	Senior men above Rs. 150 p.m with 4 or more children.

C. E. 2 quarters are built in barracks of 10 rooms each. The rooms have a front verandah 2 ft. wide, cement floor, brick walls and corrugated iron sheet roof with a canvas ceiling. They have one window with iron bars fixed in it. Each room is supplied with a wooden bedstead. For each barrack there is a seven seat latrine with flush arrangement and a urinal. Each barrack has some open land in front and a vegetable garden behind started by some labourers. These houses are the poorest and are meant for bachelors only, whether skilled or unskilled. Unskilled workers with families have no houses provided for them except in the Nepalese quarters and sweeper lines and have to go to *bustees* or settlement areas. There is considerable congestion in the Nepalese quarters and sweeper lines. For skilled workers there are generally blocks of two houses though there are some blocks even with five houses. The houses are allotted on the basis of pay but caste is taken into consideration inside the pay group. Those workers who do not get accommodation in Company's quarters or settlement areas live in *bustees*. 49 per cent. of the workers at Digboi and 75 per cent. in Tinsukia live in *bustees*. In Digboi, the Company provides a certain amount of piped water to the *bustee* areas outside its control and efforts are being made to increase this supply and to improve their sanitation by forming committees.

To those who are not provided with quarters the Company pays a house allowance of 10 per cent. of basic wages. Workers who share single men's quarters draw house allowance but those who share other quarters do not draw it. Housing allowance is admitted by the Company to be inadequate but it is not in favour of increasing it as it would be difficult to reduce it later. Majority of the workers do not bring their families as Digboi is a very expensive place.

To meet the housing difficulties in Digboi the Company laid out two "settlement areas" and hopes to increase their number. These areas are divided into plots, either 50 ft. × 50 ft. or 50 ft. × 75 ft., which are leased to workmen at a nominal rent of Re. 1|- a year. These areas are provided by the Company free with roads, lighting, piped water, drainage, and sanitation. In order to enable employees to build their own houses on these plots advances equal to a year's house allowance are given. Employees taking these advances do not receive further house allowance during that year, but thereafter house allowance is granted to men living in the settlement areas. There are 220 houses in these two settlements and 4 per cent. of the workers at Digboi live in them. Most of them are *kutcha* structures with bamboo and mud walls and thatched roof. There is a maternity clinic in the settlement area which is visited once a week by the lady doctor and health visitor. The Company had just started laying out another large area when the war with Japan started. The land is now in military occupation and the Company intends to start the scheme after the war.

Throughout the Company's housing areas, there is either waterborne sanitation or septic tanks have been set up for the disposal of excreta in bucket latrines. Flush latrines are provided for all recently built quarters and it is hoped to extend the flush system ultimately to all the housing areas. In the old quarters and in the settlement areas bucket latrines are still in use. An adequate number of septic tank latrines are also provided in the refinery, workshops and tin factory.

The housing areas are situated close to the main buildings, refinery and workshops. Employees having to go long distances to work in the oilfields are transported by bus and brought back by bus. A pure piped water supply

from deep wells serves the whole area including the oilfields. Concrete washing places are provided in factory and housing areas in numbers adequate for the adjacent population. There are 229 washing platforms in housing areas. Married quarters for other than the lowest grades have their individual latrines and washing places. All sanitation is Company-controlled, and supervised, *i.e.*, quarters with bucket latrines are attended to daily by the Company sweepers.

Welfare Activities.

Medical Aid.—The Company runs a modern well-equipped hospital which provides free treatment to its employees and their families. This hospital which was built in 1939 has accommodation for approximately 160 patients, both male and female. It has a separate contagious diseases section. Over and above this main hospital, there are two out-patient dispensaries in Digboi and one in Tinsukia. There is a Maternity Hospital for purdah women which at present has 8 beds but will shortly take 15 beds as it is being extended. In the housing areas in Digboi there are seven ante-natal and post-natal clinics.

The Chief Medical Officer and his deputy are both European. There are three senior Indian doctors whose emoluments vary between Rs. 300|- and Rs. 600|- a month. There are 9 Sub-Assistant Surgeons on a grade of Rs. 170|- to 300|- a month. There are three European nurses (including a matron) and 9 fully trained Indian nurses. The lady doctor (a graduate) in charge of the Maternity Hospital gets Rs. 250|-. The lady health visitor (fully trained and certificated) in charge of post-natal and ante-natal cases draws a salary of Rs. 201|-. The total amount spent by the Company on medical charges in the year ending September 1944 was Rs. 434,482-1-3.

The cheif ailment is malaria and the total number of malarial cases treated in 1944 was 3,943. Malaria control in Digboi is almost entirely by larval control, *i.e.*, drainage and canalisation of swamps, etc., combined with regular spraying of all breeding places with malariol. There is an adequate anti-malarial staff under the control of a doctor who has received special training. Malaria cases amongst the employees were reduced from over 11,000 in 1930 to 400 in 1934. There has been a definite increase during the war years due to various different factors. Shortage of anti-malarial drugs, for example, has resulted in a very much higher relapse rate.

All employees are medically examined before engagement. They are also vaccinated against small-pox and inoculated against diseases of the enteric group. All employees on return from leave are medically re-examined and vaccinated. In other words, most employees are medically re-examined once every eighteen months and all employees are re-examined every three years. Sick pay is paid to all employees, whether indoor or outdoor patients at Company's hospital and dispensaries. Indoor patients get free diet.

The only known cases of occupational disease are of paraffin dermatitis and slight acid burns at Tinsukia. The former cases do not exceed an average of more than one a year. This disease has no permanent effect on the employee's health and can be easily prevented by moving the employee subject to such a disease away from direct contact with paraffin, oil, etc.

Canteens.—No canteens are provided. It was explained by the Company that since many of the men live in close proximity to their work, no real need for canteens has been felt. As many employees with small pay cannot afford to bring their families to Digboi, establishment of canteens where cooked food is served appears to be an urgent need.

A creche is maintained at the Purdah Maternity Hospital for children whose mothers are either sick or cannot look after them for some reason or the other.

Education.—The following schools and classes are available to employees :—

(1) Workers' night school : open to all employees. The vernaculars, English, mathematics, and general knowledge up to the middle English standard are taught.

(2) Apprentices night schools : All apprentices working in the Company must attend these classes. English, Mathematics, science and machine drawing are taught.

(3) Artisan classes : These are classes for skilled workmen to help them pass the grade-to-grade tests. The course in these classes is confined to the reading of English figures and letters, the ordinary foot-scale, simple decimals and fractions, measurements in feet and inches and the reading of simple sketches.

(4) Matriculation classes : These are for employees who have passed the 8th standard and who are deemed to be in blind alley jobs. They are given a course up to the matriculation standard and if they pass they are eligible for clerical posts in the Company.

(5) Classes for motor drivers : This is an attempt to help drivers to read and write in English simple notes covering transfers of the material carried on their lorries.

(6) Electrical classes : There are special technical classes for employees in electrical department.

(7) Day schools for employees' children : The Company provides free education to the children of employees up to middle English standard. At present there are 7 schools, 4 primary and 3 middle English schools. The languages taught in the Primary schools are Assamese, Bengali, Hindi, Urdu and Gurumukhi. In all there are 550 boys and 300 girls in these schools. The schools were closed for over 2 years since the end of 1941 due to evacuation of families on account of war scare.

Out of a total payroll of 8,581 as on 31-12-43, 2,322 were literate in vernacular, 614 middle English passed and 609 matriculates. It was explained by the Company that these figures were conservative and merely showed the numbers of those whose educational standards had been recorded by it.

Grain Shop.—The Company maintains a stores for workmen. Staple food grains are sold at pegged prices to workmen and their families but not to their old parents living with them. In addition, a large range of commo-

dities, such as cloth, soap, stationery and books, kerosene oil, etc., are sold at cost price. The Company also maintains at Digboi vegetable and live-stock farms. From a small beginning as a live-stock improvement centre, these farms have grown into quite an important adjunct to the Company's main activities and confer read benefit on the employees.

Provident Fund.—There are two Provident Funds for the employees of the Company : (1) The Subsidiary Provident Fund for employees drawing between Rs. 30|- and Rs. 200|- p.m. and (2) The Indian Anna Provident Fund for employees drawing below Rs. 30|- p.m. All such employees who have completed two years continuous service are eligible for membership of the Indian Anna Provident Fund. In the Subsidiary Provident Fund, 1|12th of the salary of the member is deducted every month by the Company which makes an equal contribution. In the other Fund, one anna in the rupee is deducted per month from the pay of the members and if a member who has completed five years' continuous service leaves the service of the Company otherwise than upon dismissal, he is entitled to receive from the Indian Fund the amount of his contributions together with a bonus, the amount of which depends on the length of his service.

For five years' continuous service, the amount of bonus for every anna standing to the credit of the member's account is one anna three pies and it increases by one pie for every additional year of service upto a maximum of two annas six pies.

In the case of the Subsidiary Provident Fund, the Company's contribution is withheld if a member is dismissed or retires from the service of the Company without having completed an unbroken period of five years service for any reason other than ill-health or other sufficient cause. Withdrawals from the amount to the credit of the subscriber are permitted from both the funds under certain restrictions. In the case of the Subsidiary Fund, the rate of interest shall be such as the Trustees shall in their discretion declare every year, while in the case of the other Fund, there is no specific provision for interest or Company's contribution in view of the scheme of bonus mentioned above. If, however, a member is dismissed before completing five years, he will get the amount of his contribution only together with interest thereon at the rate of four per cent. per annum. The total membership on 31-12-1944 of the Anna Provident Fund and Subsidiary Provident Fund was 1,427 and 2,534 respectively.

Gratuity and Pension.—There is no retiring age limit and there is no pension or gratuity scheme. In a few hard cases, especially those involving invalidation, one to three months' pay is given and the man is repatriated.

Entertainment.—The Company runs cinema shows for all employees during Durga Puja ; twice a day the programmes are relayed to all housing areas by powerful loud-speakers. Football leagues and annual sports are organised by the Company.

Indebtedness.—Indebtedness amongst workers in Digboi does not seem to be much. In fact the Company is not aware of any known case at the present time of heavy indebtedness. Before 1939, employees very often got into trouble with the Kabulee moneylenders but they have disappeared from Digboi now as passes are required to enter Digboi since the beginning of the war.

Trade Unions and Strikes.

At present there is no trade union in Digboi. In February 1938 a trade union was formed amongst the workmen. This was known as the Assam Oil Company Labour Union and had a membership of 5,825, *i.e.*, a large majority of the employees had joined the Union. It was registered in August 1938 but prior to its registration, the Union submitted to the Company a list of their demands on the 27th July 1938. The Company in reply gave its views on each of the demands and stated that it refused to recognise the Union until fuller information was given about the details of its constitution. On receipt of the Company's letter, the Union replied that drastic action would be taken unless the demands were granted within fourteen days. The Company then applied to the Government of Assam to appoint a Court of Enquiry under Section 3 of the Trade Disputes Act, 1929. On the 16th August, the Government appointed a Court of Enquiry, under the chairmanship of Mr. J. G. Higgins, C.I.E., I.C.S., Commissioner, Assam Valley Division, and the Court submitted its report on the 7th January 1939. The Court, as a whole, made 28 recommendations unanimously. The more important recommendations were regarding recognition of the Union by the Company, introduction of a time-scale for unskilled and semi-skilled workers, promotion by transfer for employees whose chances of advancement in their own departments are small, granting personal allowances in cases of hardship through failure to obtain promotion or increment of pay, granting those religious holidays with pay which are allowed by the Government to Post Office workers, establishment by the Company of a Works Committee or Labour Council, framing of service rules governing the questions of punishment, dismissal and discharge and introduction of efficiency bonus. The Government had no hesitation in endorsing all the unanimous recommendations of the Court and appealed both to the Company and to the Union to accept the recommendations and thus establish happy and peaceful relations between the employer and the employees. The relation between the parties, however, continued to be strained, especially over the reduction of staff at Tinsukia and a strike actually broke out on the 3rd April 1939 which attracted much public attention for various reasons, particularly on account of the completeness and determined nature of the stoppage and the firing that took place on the 18th April in which three men lost their lives. The Government, therefore, decided to appoint a Committee of Enquiry into the origins and facts of the dispute. The Committee was appointed on the 10th July 1939 and was presided over by Sir Manmatha Nath Mukerji. Meanwhile, the continuance of strike was causing so much loss and hardship to both the parties concerned, that Government felt that they ought not to postpone further attempts at settlement until the report of Sir Manmatha Nath Mukerji was settlement. Mr. K. K. Hajara, I.C.S., District and Sessions Judge, was, therefore, received and appointed a Board of Conciliation, in order to bring about a fore, constituted a Board of Conciliation under Section 3 of the Trade Disputes Act, 1929, on 26th July 1939. The conciliation proceedings failed principally on the ground of re-instatement *en masse* of the strikers.

The Committee of Enquiry came to the finding that the strike was resorted to without any really justifying grievance, that the Labour Union which was

responsible for bringing it into existence had notions about the respective rights of Capital and Labour which are not correct and cannot be justified and that the strike could easily have been put an end to at any moment, if it was possible to restore the *status quo ante* by taking back into work all the men who were out. The Committee of Enquiry's report was received by Government on the 3rd December 1939 but the strike had collapsed before that date for the reasons given in the following extract from the proceedings of the Government of Assam in the General and Judicial Department No. 782G-G-J, dated the 18th December 1939 :—" This report is not rendered less important by the fortuitous conjunction of events resulting from the declaration of war exactly five months after the strike began, when the Digboi-Tinsukia area was declared protected under the Defence of India Ordinance owing to the national importance of the oil products in time of war, the removal from the neighbourhood of nine strike leaders whose conduct was preventing the resumption of work, and the consequent collapse of the strike. Indeed, it was and remains an unfortunate feature that the Enquiry was not complete and the Report available before these measures had to be taken*."

Working of the Labour Acts.

Not all of this industry comes under the Factories Act. The Act applies only to the refinery, general workshops and the tinning factory at Tinsukia. Its provisions are complied with. The Payment of Wages Act is also properly complied with in these factories. There is no law governing the oilfields which have been exempted from the scope of the Indian Mines Act as mentioned earlier.

Workmen's Compensation Act.—No complaints were received about the working of this Act. The Company not only pays the compensation laid down under the Act but also, as an act of grace, does not, as a general rule, deduct from the compensation the allowance paid to the injured workman during the period of assessment of the amount as it is entitled legally to do under proviso (a) to section 4 of the Act. It also pays half pay for the first four days and thereafter full pay as long as he is in the hospital, though under the Act no payment is required for the first seven days. All accidents are reported to the Company's office (an accident being an injury which draws blood) with the object of seeing that the injured employee receives medical treatment. Employees temporarily incapacitated by accident but not legally entitled to compensation obtain their sick leave pay according to the Company's rules. Compensation based on the assessment of disability by the Company's Chief Medical Officer is paid to the injured workmen by the Labour Superintendent.

Should the injured person dispute his final settlement, he is advised to apply for his compensation to the Deputy Commissioner and the necessary papers and money are thereupon deposited with that officer. In case of fatal accidents, the money is immediately deposited with the Deputy Commissioner and all claimants are advised to go to his Court to establish their right to the money. The Company does not insure against compensation claims under the Act. Contractors pay compensation to their own labour.

The following table shows the number of accidents and compensation paid for the last five years. No complete figures are available for 1939 owing to the strike.

* The Assam Gazette, December 20, 1939, p. 1401.

TABLE. 12.

No. of accidents and compensation paid, 1940—1944.

Year	Total No. of accidents	Fatal cases	Cases resulting in permanent total disability	Cases resulting in permanent partial disability	Serious cases over 21 days but from which no permanent or partial disability occurred	*Minor cases who returned to work within 21 days	Compensation paid according to the Act.	Additional *ex gratia* payments made by the Company.
							Rs. A. P.	Rs. A. P.
1940 ..	1,605	2	1	44	105	1,453	11,775 1 0	1,584 5 6
1941 ..	1,737	3	..	53	142	1,539	13,603 2 3	2,986 5 9
1942 ..	2,155	5	..	46	188	1,916	18,025 10 6	2,043 5 9
1943 ..	2,978	10	..	33	260	2,675	24,613 11 9	2,171 0 2
1944 ..	3,247	5	..	42	276	2,924	19,201 10 0	2,023 13 0

*A very large number of the minor cases are trivial as the Company insists on every man who suffers any abrasion going to Hospital or dispensary to have it dressed and the man generally stays away from work for 3 or 4 days until the abrasion has healed.

Each department has drawn up safety rules for the guidance of its particular groups of men to whom the rules are periodically explained and the necessity for adhering to them ephasised. This probably accounts for the low rate for major accidents.

Maternity Benefit Act.—Maternity leave on full pay to female workers is granted up to a maximum of eight weeks, subject to a certificate from the Company's Medical Officer. A further one month's maternity leave with full pay is given in special circumstances if recommended by the Company's Medical Officer. As mentioned above, the Company employs no women workers except in schools and hospitals.

CHAPTER III.—THE PUNJAB.

The Attock Oil Company has got a refinery at Rawalpindi and two oilfields at Khaur and Dhulian which are at a distance of 56 and 67 miles respectively from the refinery. The Company has also six outfields not far from Dhulian and in four of them prospecting work is going on at present. Oil is actually being obtained from one of the outfields also.

Employment.

The total volume of employment in this Company, excluding supervisory staff getting over Rs. 200 per month and clerical staff, in January of 1939 and of the following six years is given in the following table :—

TABLE 13.

Employment in the Attock Oil Co., 1939-1945.

Year	Refinery	Oilfields	Total
1939	1,062*	1,297	2,359
1940	1,065*	1,227	2,292
1941	1,244*	1,166	2,410
1942	1,910	1,279	3,189
1943	2,138	1,910	4,048
1944	1,460	1,476	2,936
1945	1,408	1,643	3,051

*Average for the year.

All the above workers are employed directly by the Company. They are all time-rated with the exception of a few in the candle factory. No women except the female sweepers and no children except a few office boys are employed. At present the Company is experiencing shortage of labour, both skilled and unskilled, due to more attractive terms offered by the military contractors.

Contract Labour.—Contract labour to the extent of about 100 persons a day is engaged in the refinery for loading and unloading of kerosene tins, etc. They are all unskilled and are engaged and paid by the contractor. The contractor does not give dearness allowance to his labour but gives them wages at Re. 1 per day. The contract labour gets all the facilities offered by the Company to its employees except housing. There is no contract labour in the oilfields.

Recruitment.—Majority of the labour employed by the Company is local and is recruited from neighbouring villages, but a considerable number also comes from other districts of the Punjab and U.P. The recruitment is made directly by the Company but skilled personnel is now obtained through the Employment Exchange, Lahore. Before employment, the character of a recruit is verified through the Police. Service Book, introduced in 1941, is maintained for each employee. It contains details about his joining service, occupation, pay, leave, discharge, etc., as well as his photograph and his right thumb print.

There is no classification of workers as permanent or temporary. All workers are considered as permanent and enjoy the same privileges. Though the employees are treated as permanent, only monthly-rated workers, *viz.*,

head plant ministries and supervisory staff get one month's notice and daily-rated workers get one day's notice or pay in lieu thereof before discharge.

Length of Service.—Information about the length of service is available only in the refinery and is given in the following table :—

TABLE 14.

Length of Service in 1944.

Length of Service	Per cent. of total
Below one year	25
Between 1 and 5 years	45
Between 5 and 10 years	20
Over 10 years	10

Age composition of the employees is also available only in the refinery and is given in the following table :—

TABLE 15.

Age Composition in 1944.

Age composition	Percent of total
15 to 17 years	2
17 to 20 ,, ...	6
20 to 25 ,, ...	20
25 to 30 ,, ...	21·5
30 to 35 ,, ...	17·5
35 to 40 ,, ...	12
40 to 45 ,, ...	12
45 to 50 ,, ...	5
50 to 55 ,, ...	3
55 to 60 ,, ...	·5
Above 60 ,, ...	·5

Average age of entering employment is 24 and of retirement is about 50.

Apprenticeship.—There is no system of apprenticeship in the process side of the refinery. In the engineering side, there are only 5 or 6 apprentices in the workshop. Their period of training is 3 years and they are paid annas 12 a day in the first year, Re. 1 in the second year and Rs. 2 in the third year, in addition to dearness allowance.

In the oilfield at Khaur, 42 apprentices are being trained for such jobs as fitters, carpenters, etc. The period of training is five years. They start with 9 annas per day and dearness allowance and get Re. 1 in the 5th year by gradual annual increments. Apprenticeship period is counted towards service.

Labour Turnover.—The figures of labour turnover for the years 1943 and 1944 in the refinery are given in the following table :—

TABLE 16.

Labour Turnover in the Refinery for 1943 *and* 1944.

Year	Average daily employment	Separations (all voluntary)	Percent of Total
1943	1,348	1,260	93
1944	1,334	1,506	113

Usually in the beginning of the month a good many new workers join and out of them many leave in a month or so to join service in neighbouring arsenals and under military contractors. Some of the local labour goes away in the agricultural season. This accounts for the very high rate of labour turnover. The turnover is largest among new unskilled workers and does not materially affect the old labour force.

In the oilfields there is no record of turnover for unskilled labour. The following table shows the turnover for skilled labour in 1939 and 1944 :—

TABLE 17.

Labour Turnover in the Oilfields for Skilled Labour for 1939 *and* 1944.

Year	Average daily employment	Total separations		Percent of Total
		Dismissal	Left voluntarily	
1939	1,560	69	*Nil*	4·2
1944	1,750	46	16	3·5

Absenteeism.—Figures of absenteeism in 1939 and 1943 were not available. In 1944, for the first seven months, the percentage of absenteeism from all causes was 16.5. In the oilfields, absenteeism is practically nil except due to sickness.

Standing Orders.—There are no Standing Orders.

Labour Officer.—There is no Labour Officer and the workers are expected to put forward their grievances before their Departmental Heads and afterwards before the General Manager.

Wages and Earnings.

In the refinery, basic wages have remained unchanged since 1939. Skilled workers are graded and minimum and maximum daily rates of pay have been fixed for the various categories ranging from 10 annas to Rs. 3-8-0 and annual increments of one to two annas are granted within these limits, *e.g.*, fitters and turners are classified in two grades, grade I carrying a daily rate of Rs. 2-2-0 to Rs. 3-8-0 and grade II Rs. 1-10-0 and Rs. 1-12-0 to Rs. 2 with an annual increment of two annas in each case. The scale for semi-skilled and unskilled labour is annas 11 to Re. 1, generally with an annual increment of one anna. Unskilled workers start and end on annas 9 a day.

In the oilfields skilled labour is divided into four grades :—

	Rs. A. P. to Rs. A. P.
Grade 1	2 4 0 „ 3 0 0
Grade 2	1 10 0 „ 2 0 0
Grade 3	1 2 0 „ 1 8 0
Grade 4	0 12 0 „ 1 0 0

In addition, there are two special grades :

Special Grade " A " = Rs. 3-2-0 to Rs. 3-8 0.

Special Grade " B " = Rs. 3-10-0 to Rs. 4-0-0.

Annual increment of one anna is given in the lowest two grades and two annas in the higher grades.

Semi-skilled workers start on 9 annas a day and reach up to 11 annas by an annual increment of one anna. Some of the semi-skilled workers are taken up in the skilled category if they prove their fitness by experience. There are no special training facilities for such men. Unskilled labourers start on 9 annas per day and, as in the refinery, remain at that throughout their service.

Prior to 1942, there were no fixed grades and increments were given only on the recommendations from the Heads of Departments from time to time. The system was reviewed and wage grade system based on the N.W. Railway system was introduced in 1942. There is no system of trade tests and promotion from one grade to another depends upon merit and vacancies.

Analysis of Basic Wages.—The following table sets out the frequency distribution in specified groups of daily basic wages of 3,011 employees of the Company. The wage period to which the information relates is, as in the case of Assam Oil Company, the month of January, 1945. All the workers whose frequencies have been tabulated were daily-rated. The table covers workers in the refinery which includes the tin factory and in the oilfields, including the outfields, excepting 40 monthly-rated supervisory staff getting below Rs. 200 p.m.

TABLE 18.

Frequency distribution in specified groups of daily basic wages of 3,011 *employees of the Attock Oil Company Limited in January,* 1945.

Section.	Less than Re. 0/8/-.	Between Re. 0/8/- & -/12/-.	Between Re. -/12/- & 1/-/-.	Between Re. 1/-/- & 1/4/-.	Between Re. 1/4/- & 1/8/-.	Between Re. 1/8/- & 1/12/-.	Between Re. 1/12/- & 2-/-.	Between Rs. 2/-/- & 2/4/-.	Between Rs. 2/4/- & 2/8/-.	Between Rs. 2/8/- & 3/-/-.	Between Rs. 3/-/- & 3/8/-	Rs 3/8/- and above.	Total.
Oil Fields.													
Khaur	..	257	46	42	32	28	19	9	16	19	4	2	474
Dhulian	..	409	101	85	35	6	6	12	5	17	3	1	680
Outfields	..	386	47	19	10	12	4	3	5	2	1	..	489
Total of field employees ..	..	1,052	194	146	77	46	29	24	26	38	8	3	1,643
Per cent. of the total in all groups.	..	64·0	11·8	8·9	4·7	2·8	1·8	1·4	1·6	2·3	·5	·2	100
Refinery.													
Process	..	119	126	49	13	7	5	6	2	2	1	..	330
Engineering	1	254	47	27	28	36	42	35	36	12	5	5	528
Tin factory	2	140	85	27	15	12	2	1	1	..	1	..	286
Pool Staff	5	190	18	5	3	1	2	..	..	..	..	..	224
Total for refinery ..	8	703	276	108	59	56	51	42	39	14	7	5	1,368
Per cent of total in all groups	·6	51·4	20·2	7·9	4·3	4·2	3·7	3·1	2·7	1·02	·5	·4	100
Grand total for oil fields & refinery.	8	1,755	470	254	136	102	80	66	65	52	15	8	3,011
Per cent. of total ..	·3	58·3	15·6	8·4	4·5	3·4	2·6	2·2	2·2	1·7	5	·3	100

It will be seen from the above table that the model wage groups in all the sections of the industry is between annas 8 and 12. In the two oilfields and four outfields, 64 per cent. of the employees fall in this group. In the refinery this group comprises 51.4 per cent. In the aggregate, 1,755 workers out of 3,011 or 58.3 per cent. of the total had their basic wages between annas 8 and 12 per day. Altogether 74.2 per cent. were earning basic wages of less than Re. 1 ; another 12.9 per cent. were earning between Re. 1 and Rs. 1-8-0 and the remaining 12.9 per cent. were earning above Rs. 1-8-0.

Dearness Allowance.—Dearness allowance which is the same in the refinery and oilfields, is equal to, and fluctuates with, the N.W. Railway allowance. The present rates of dearness allowance are as follows :—

Rs. 11 p.m. to those earning up to Rs. 40 p.m.

Rs. 14 p.m. to those earning between Rs. 40 and Rs. 140 p.m.

10 per cent. of the pay to those earning above Rs. 140 p.m.

Dearness allowance is lost by being absent without leave for two days or more in a month. In 1944, 285 men in the refinery and 58 men in the oilfields lost their dearness allowance completely for this reason. We have to offer the same remarks on this method of paying dearness allowance as in Digboi. There is naturally a good deal of agitation among workers on this account, especially as leave is not freely granted owing to shortage of labour.

Other Amenities.—Fuel allowance of 14 annas per month is given to all occupants of the company's quarters in the refinery, except unskilled labourers. Cloth allowance of 2 annas per day is also given to workers in dirty jobs or where clothes may be spoiled. Special uniform as prescribed by the Ethyl Corporation is given to men who mix lead with petrol. Mistries with wide supervisory duties get Rs. 5 per month as cycle allowance.

All the staff in the outfields are accommodated in temporary houses and are compensated for this and other disabilities by outstation allowance. The rate per day is

Re. 0-4-0 for unskilled workers.

Re. 0-6-0 for men drawing less than Re. 1.

Re. 0-8-0 for men drawing between Re. 1 and Rs. 2-12-0.

Re. 0-12-0 for men drawing over Rs. 2-12-0.

Fine Fund.—There is a Fine Fund and the amount of fines realised is credited to the Company's midwifery scheme. Fine is generally small and is levied up to the limit permissible under the Payment of Wages Act. In 1944, it was not imposed in the refinery and it amounted to Rs. 20-14-0 in the oilfields.

Wage Period.—The period of wage payment is a calendar month for all workers though most of them are daily-rated and wages are paid within 10 days of the succeeding month.

Holidays and Leave.—Sundays are normally closed days in the refinery except in the continuous processes and there are no closed days in the oilfields, where drilling and producing is a continuous process. Religious holidays are granted, 5 to each denomination per year plus Christmas Day, i.e., 6 days with pay, both in the refinery and in the oilfields. Work on holidays is paid for

at double rates. 15 days' leave with pay is granted per year to monthly-rated workers only and it may be accumulated for 3 years.

Working Conditions.

Shifts and Hours of Work.—In the refinery, normal hours of work for the day workers are from 8 a.m. to 4-30 p.m. There are 3 shifts in continuous processes : 8 a.m. to 4 p.m., 4 p.m. to 12 midnight and 12 midnight to 8 a.m. Tin factory has two shifts : 7-30 a.m. to 4 p.m. and 4 p.m. to 12 midnight. The second shift is a temporary war time measure. These hours are for winter and shifts start half an hour earlier in summer. There is half an hour's interval in each shift.

In the oilfields, continuous process workers work on three shifts : 8 a.m. to 4 p.m., 4 p.m. to midnight and midnight to 8 a.m. without any rest or interval. Others work in the general shift from 8 a.m. to 5-30 p.m. with an hour's interval from Monday to Friday ; and from 8 a.m. to 1-30 p.m. on Saturday, for which full pay is given.

Overtime.—Overtime work is not a regular feature in the refinery and, when it rarely occurs, it does not exceed two hours per day. It is not compulsory. In the oilfields, except at outfields, there is very little overtime work. Overtime is worked occasionally as breakdown or emergency may demand. In both the cases, overtime work is paid according to the Factories Act. In the outfields, it is paid on *pro rata* basis, taking 8 hours as the normal period of work.

Housing.

The Company provides housing for about 50 per cent. of its workers in the refinery. There are two types of quarters ; one with a single room and the other with two rooms. The single room tenement measures 10½′ × 7½′ with a verandah in front. The rooms in the double quarters measure 16′ × 10′ each. Some of the new double quarters have got rooms measuring 18′ × 12′. Both the double types have got a verandah and a courtyard. There are about 650 single quarters and 100 double quarters. Both the types of quarters are *pucca* and built in cement and brick or lime and brick. Majority have cement floors. Some have electric lights. The quarters are not well ventilated. 59 quarters are provided with a bath room each. No rent is charged by the Company for housing and there is no congestion except in a few cases where the employees have brought their own relatives to live with them. There is no sub-letting. Allotment of houses is made on a point system which takes into consideration seniority, loyalty, etc. Some departments have their own quarters and give preference to their own workers.

Some single quarters are in double storeyed and back-to-back barracks with 14 rooms on each floor, which means that a barrack holds 56 workers. In some of these barracks common bath rooms were built in 1940, six for men and six for women separately, but they were abused as latrines and the experiment had to be given up. New latrines have now been built near the common bath rooms which will be shortly reopened. Many married persons occupy single quarters. The double quarters are given to skilled workers and many of them are also built back to back. Water supply is common to a set of 10 quarters which have a common water pipe. Flush latrines and urinals are also common and situated close to the quarters. 12 married and 15 single quarters are provided by the contractor to whom rent is paid by the Company. No quarters have been built by the Company since 1942. The remaining workers live in the adjoining villages in their *kutcha* houses or in rented quarters in Rawalpindi, which lack proper sanitation and which are more expensive.

In the oilfields, housing is provided for skilled workers only as most of them are imported from outside. The unskilled workers come from neighbouring villages. Here also there are two types of quarters, double and single. There are 27 double and 220 single quarters at Khaur and 12 double and 90 single quarters at Dhulian. Double quarters consist of two rooms 12′ × 12′ each and a kitchen. They have also a wash place, verandah and courtyard. Some courtyards are large measuring 28′ × 25′ while some are small measuring 21′ × 12′. Single quarters consist of one room, measuring either 12′ × 12′ or 12′ × 9′. It has also a kitchen verandah and a courtyard measuring 19′ × 14′. All single quarters are built back to back. All quarters have electric lights. The drainage in the Khaur housing area is very bad. A scheme of proper drainage was proposed by the Khaur Notified Area Committee and the Company was to share half the cost but it has been held up due to war.

Water Supply.—In the refinery, water supply is pure and ample. There is piped water supply from Sohan river at Khaur. Water at Dhulian is brackish and drinking water is taken there from Khaur by a water lorry every day. Piped water supply is also provided in the outfields.

Welfare Activities.

Medical and other facilities.—The Company has, at the instance of the A.R.P. authorities, put up an excellent First Aid Centre at the refinery to deal with air raid casualties and a section of it is now being used as the hospital, the old hospital being converted into a club for workers. The hospital has accommodation for 30 beds but only one small ward containing 3 or 4 beds is used and serious cases are sent to the Civil Hospital. The doctor in charge is an L.M.P. and has got two compounders, one dresser and a midwife under him. There are two hospitals in the two oilfields at Khaur and Dhulian. The one at Khaur has accommodation for six beds and is under an L.C.P.S. doctor who is assisted by a compounder, a dresser and a midwife. Here also there is a fine hospital put up for the same reason as in Rawalpindi, but it is not used as all serious cases are sent in an ambulance to Rawalpindi. Similarly, the dispensary at Dhulian which is under an M.B.B.S. doctor who is assisted by a compounder, is only a First Aid Centre. There is no report of any occupational diseases in the oilfields. There is no periodical examination of the workers after their first examination at the time of appointment.

In addition to the resident Medical Officers, the Company has a Senior Medical Officer for consultation, who is usually the officer in charge of the Indian Military Hospital at Rawalpindi. He visits the refinery once a week and the oilfields once a month. The Company spent Rs. 20,857 in the refinery and Rs. 11,684 in the oilfields on medical expenses in 1944.

As there are no women workers the question of 'creche' does not arise No educational facilities are provided by the Company but one primary school is run by the employees themselves in the refinery. There is one District Board anglo-vernacular middle school and a District Board primary school at Dhulian. Apart from mistries, very few employees can read or write.

The Company has a provision shop both at the refinery and at the oilfields, where all the essential commodities are supplied at cost price plus expenses. Firewood is supplied at Rs. 1-4-0 per maund against the market rate of Rs. 2-8-0 per maund. Kerosene oil is also supplied at Rs. 1-5-0 per gallon up to 2 gallons per month to skilled workers and one gallon for semi-skilled workers. The unskilled workers do not get it at all.

Recreations.—There is a club at the refinery and the subscription is 4 annas a month. It has a reading room and a library. There are about 150 members and the daily attendance is about 40. In addition, there is a refinery sports club where foot-ball, cricket and hockey are played. Mem-

bership fee is 2 annas per month in the case of workers and is higher in the case of the staff. The sports club has about 300 members. The Company has given the playground and keeps it in repairs. Advantage of both the clubs is taken mostly by the skilled workers.

Provident Fund.—A Provident Fund was started in 1925 and was made available in 1940 to those workers who have put in 3 years' service and who are in receipt of a minimum of Rs. 1-14-0 as wages per day. The subscribers contribute 1|12th of their wages and the Company contributes an equal amount. Interest is added at the rate of 6 per cent. per annum. The Fund is recognised under the Income Tax Act. Only 332 members have joined the Fund as most of the labour force is not eligible to join it in view of the minimum qualifying wage mentioned above. There is no gratuity or pension scheme in this concern. As all the employees are considered as permanent, it is desirable that joining the Provident Fund should be made compulsory in the case of every employee who has put in at least one year's service.

Indebtedness.

It appeared from our enquiries that there was not much indebtedness among the workers. This view is shared by the management. Marriages and funerals are the chief causes of indebtedness. The usual rate of interest is 3 pies per rupee per month, *i.e.*, 18¾ per cent. per annum.

Trade Unions and Strikes.

The workers have not formed themselves into a trade union either at the refinery or in the oilfields. In the refinery there were no strikes except a minor one in 1942 for about half an hour only in the Tin Factory over the treatment of a worker by the Supervisor. The strike was amicably settled.

In the oilfields, there were three partial strikes in the last 15 years, involving drilling labourers and boiler firemen who number about 200. The first two were over wages and the last was about transport owing to the difficulty of getting parts, etc., for bicycles. It was settled by the Company agreeing to carry a proportion of the workers living in nearby villages to the places of work in its lorries.

Working of the Labour Acts.

The provisions of the Factories Act and the Payment of Wages Act which apply to the refinery and to the workshop in the oilfields are complied with. No complaints were received about the working of the Workmen's Compensation Act. Unlike in Digboi, the Company accepts responsibility for compensation to contractors' labour also. It has insured against accidents with an Insurance Company which accepts the Company's Senior Medical Officer's assessment and pays the compensation without delay

The following table shows the number of accidents and the compensation paid since 1939 :—

TABLE 19.

No. of Accidents and Compensation paid, 1939—1944.

Year	Total No. of cases	No. of Fatal cases	Serious injury	Minor injury	Compensation paid
					Rs. A. P.
1939	88	7	18	63	19,036 12 7
1940	76	1	12	63	7,166 4 0
1941	87	..	18	69	8,047 1 0
1942	91	2	24	65	16,177 3 0
1943	110	4	16	90	14,393 0 0
1944 ..	91	3	16	72	13,493 0 0

Most of the accidents in the oilfields take place while loading and unloading pipes, barrels, etc., from lorries. There has been no accident during the last 10 years or more due to falling from derricks, though the labourers climb up by a steep iron ladder to fourble board (70 ft. high) to replace the drilling bit when it gets worn-out (which happens after about 48 hours of work) and to the top of the rig (crown block platform) for greasing pulleys once a day. They wear safety belts on fourble board but not on the crown block platform.

Maternity Benefit Act.—This Act applies to 14 women sweepers only. They get 6 weeks' leave with pay before delivery and are given soft jobs for 6 weeks after delivery.

CHAPTER IV.—SUMMARY AND CONCLUSIONS.

Mineral oil is obtained in India from two areas, *viz.*, Digboi oilfields in Assam and Khaur and Dhulian oilfields in the Punjab. Fresh sources of oil have been located near the latter oilfields. The annual average production of petroleum in India during the period 1929—1938 was nearly 66 million gallons. The total production in 1944 is estimated at 83 million gallons.

Employment.

The Assam Oil Company is the bigger and older of the two Companies and employs about 8,700 people while the Attock Oil Company employs only about 3,000. The employment figure in Digboi is somewhat inflated on account of the stepping up of production in war time and normal employment in the post-war period would probably be in the neighbourhood of 10,000. Very few women and children are employed.

Recruitment of unskilled and semi-skilled workers is done at the gate in both Assam and the Punjab. In Assam, skilled workers are chiefly recruited from youths completing apprenticeship in the Company's workshops and by promoting improvers who pass the required trade tests. The Attock Oil Company obtains skilled personnel through the Employment Exchange, Lahore. A certain amount of labour is also employed by contractors for building and road work in Assam and for loading and unloading kerosene tins etc., in the Punjab. In Assam about 80 per cent. of the workers are considered as permanent but in the Punjab there is no classification of workers as permanent and temporary. 30 per cent. of the workers in the Attock Oil Company's refinery have more than 5 years' service while in Assam the percentage is only 18. Turnover of labour and absenteeism has increased in Assam compared to 1939. In the Punjab turnover has increased and although no comparative figures for absenteeism were available, absenteeism in the refinery was 16.5 per cent. for the first seven months of 1944.

The Assam Oil Company has various notifications and bulletins setting forth conditions of employment which need codification. The Labour Superintendent in Assam at present discharges the functions of a Labour Welfare Officer also. The Attock Oil Company has neither Standing Orders nor a Labour Officer.

Wages and Earnings.

All the employees in the mineral oil industry are time-rated. In Assam the artisans in the refinery are classified into five grades with rates of Rs. 1-2-0 to Rs. 1-6-0, Rs. 1-8-0 and Rs. 1-12-0, Rs. 2-0-0 to 2-4-0, Rs. 2-8-0 to Rs. 3-0-0 and Rs. 3-8-0 to Rs. 4-0-0 per day. In the Punjab, the skilled workers in the refinery have generally two grades, the minimum and maximum rates being Re. 0-10-0 and Rs. 3-8-0 respectively. Skilled oil workers have also different grades in both the Companies with rates varying from Rs. 1-2-0 to Rs. 4-0-0 in Assam and Re. 0-12-0 to Rs. 3-0-0 in the Punjab. Unskilled and semi-skilled workers have wages between Re. 0-12-0 and Rs. 1-2-0 in Assam and between Re. 0-9-0 and Re. 0-11-0 in the Punjab.

The analysis of daily basic wages in the mineral oil industry shows that 47.7 per cent. of the workers in Assam were on wages between Re. 0-12-0

and Re. 1-0-0 and only 7.9 per cent. were getting over Rs. 2-0-0. In the Punjab the modal group which consists of 58.3 per cent. was earning between Re. 0-8-0 and Re. 0-12-0 while only 6.9 per cent. were getting above Rs. 2-0-0.

The Assam Oil Company gives a war dearness allowance of Rs. 16-8-0 per month, a temporary emergency allowance of 10 per cent. of basic wages earned and an absent dependents' allowance of Rs. 3 for each ration less than 4 drawn from the Company's stores. The Attock Oil Company gives dearness allowance at the same rates as the N. W. Railway whose present rates are Rs. 11 p.m. to those earning up to Rs. 40 and Rs. 14 for those earning between Rs. 40 and Rs. 140 and 10 per cent. of the pay to those earning above Rs. 140 p.m. The allowances in both the Companies are linked with attendance. In Assam both dearness allowance and absent dependents' allowance is reduced on a slab system for every day of absence from work until the allowances are nil for more than 6 days' absence in a month. In the Punjab dearness allowance is lost by being absent without leave for two days or more in a month. This practice is decidedly unfair to the workers especially as dearness allowance is meant to cover the increased cost of living due to the war. The wage period in both the concerns is one month and wages are paid within 10 days of the succeeding month.

Working Conditions.

In the refineries and oilfields, continuous processes work three shifts of 8 hours each. All such shift workers get an interval of half-an-hour in each shift in Assam, but in the Punjab there is no interval in such shifts in the oilfields. There is no reason why a rest period should not be allowed in the Punjab oilfields also. The general workers work from 6-30 a.m. to 4 p.m. with 1½ hours' interval in Assam and 8 a.m. to 4-30 p.m. with half-an-hour's interval in the Punjab. General working conditions are good in both the Companies.

The Assam Oil Company grants 14 days' leave with pay and 28 days' leave without pay to all workers for each year's service besides 3 religious holidays with pay. The Attock Oil Company grants 15 days' leave with pay to monthly-rated workers only. It has, however, 6 paid religious holidays in the year for all workers.

Housing.

The Assam Oil Company provides housing for 47 per cent. of its workers in Digboi and 25 per cent. in Tinsukia. The Attock Oil Company houses 50 per cent. of its workers in the refinery, but in the oilfields most of the skilled workers only are provided with houses. In both Companies no rent is charged. The Assam Oil Company pays a house allowance of 10 per cent. of basic wages to its workers who can not be provided with quarters but the Attock Oil Company does not do so.

Welfare Activities.

The Assam Oil Company has a well-equipped hospital in Digboi with a number of qualified doctors, nurses and other staff where free treatment is given to the workers and their dependents. It also maintains a dispensary at Tinsukia. The Attock Oil Company has put up a First Aid Centre at the instance of the A.R.P. authorities in the refinery and a section of it is being used as a hospital. It has a small hospital in each of the two oilfields.

Educational facilities for the employees and their children are satisfactory in Assam. The Attock Oil Company has paid little heed to this requirement. There are grain shops for selling rice, wheat and other commodities both in Assam and the Punjab ; but while the Assam Oil Company sells commodities at concession prices, the Attock Oil Company sells them at cost price.

Both the Companies have Provident Fund. But in the Attock Oil Company, membership is open only to those workers who have put in 3 years' service and who are in receipt of a minimum of Rs. 1-14-0 per day as wages. It would be well if the rules of this Company's Provident Fund are liberalised.

There is no trade union in both the centres.

Working of the Labour Acts.

The refineries, general workshops and the tin factories come under the Factories Act and the Payment of Wages Act and their provisions are duly complied with. There is no Act, however, governing the working conditions in the oilfields, though some of the work there is of a dangerous character. No complaints were heard about the working of the Workmen's Compensation Act. The Assam Oil Company treats accident cases generously by making *ex gratia* payments over and above those prescribed under the Act. The Attock Oil Company pays compensation for accidents to contract labour as well.

Conclusions.

To conclude, the Assam Oil Company, as remarked by Sir Manmatha Nath Mukerji, has been far from inconsiderate or apathetic as regards the welfare of those whom it employs. Its policy is to demand efficiency and to give good pay, and the lowest paid unskilled worker gets in all Rs. 48-14-0 a month including all allowances but excluding the monetary value of food concessions which is estimated at Rs. 11 per month. It has an efficient labour office, a good apprenticeship system, its leave rules are liberal and its medical, educational and housing arrangements are satisfactory. In most of the above respects the conditions in the Attock Oil Company require improvement. The Attock Oil Company should also have a set of Standing Orders and a Labour Officer.

Dearness allowance should not be linked with attendance in both the concerns, but should be paid for the days worked as is the case in most of the other industries. Provident Fund should be compulsory and should be available to all persons with one year's service.

Action urgently needed in this industry is to implement the Whitley Commission's recommendation to extend the protection of the law in regard to rest days, hours, health and safety to workers on the oilfields.

SIMLA,
The 23rd June, 1945.

D. V. REGE.

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LABOUR INVESTIGATION COMMITTEE
GOVERNMENT OF INDIA

REPORT
ON
AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE PRINCIPAL MUNICIPALITIES IN INDIA

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BY

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making, cigar and cigarettes. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations in order of importance of, (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cottons, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the states of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port Authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

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Secretary.

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This report is based on the information supplied by the various municipal administrations supplemented by enquiries made on the spot by the Supervisors of the Committee. I am indebted to them for their assistance in this matter. My special thanks are due to the Municipal Officers at Bombay, Karachi and Madras for the facilities they gave me for local investigations regarding problems of municipal labour. In the preparation of the final draft of the Report I have also received considerable assistance from Mr. S. R. Sundaram, formerly one of the Supervisors of the Committee.

CHAPTER I.—INTRODUCTION.

Municipal Government in India on the elective principle dates back to the eighties of the last century although, even before that there were few Royal Charters and Statutes dealing with municipal administration. The municipal administration in all the Presidency towns consists of a municipal corporation with elected representatives of the citizens.

For purposes of this enquiry the Committee decided that only the major municipalities should be covered. Accordingly, the municipalities of Bombay, Madras, Calcutta, Karachi, Lahore, Cawnpore and Nagpur were selected. Except for the municipal authorities of Bombay, Madras and Karachi, however, the others did not supply any satisfactory information. The Committee's investigating staff at Calcutta failed to collect adequate material and the servey of municipal labour in Calcutta has had, therefore, to be omitted from this Report.

The following sections of the Report deal with the various problems relating to labour employed by the different municipalities. These are based on the information supplied by the municipal authorities supplemented by *ad hoc* investigations made by me and the Committee's staff on the spot.

CHAPTER II.—BOMBAY CITY.

The Bombay Municipal Corporation is a very large employer of labour and employs, excluding supervisory and clerical staff, about 17,000 persons. The following statement gives comparative figures of employment on 1st January 1939 and 1st January 1944 :

TABLE I.

Nature of employment.	1st January 1939	1st January 1944
a. Supervisory staff	1,239	1,241
b. Clerks	1,887	2,164
c. Workers (including masons, plumbers, etc.)	15,907	16,946
Total . .	19,033	20,351

It is to be noted that although , owing to the conditions created by the war, the population of Bombay city has risen enormously in recent years and is now estimated to be in the neighbourhood of about 20 lakhs, the number of workers employed by the Municipality has not shown any appreciable increase.

Labour is employed directly and no labour is employed through contractors. Of a total of about 17,000 workers nearly 13,000 are employed in some six departments of the Municipality. Of these, from the point of view of the numbers employed, the Engineering Department, the Public Health Department and the Hydraulic Department are the most important. It may be of interest here briefly to describe the functions of the various municipal departments.

Hydraulic Department.—Bombay receives its water supply from three lakes of which Tansa is the main source of supply and is situated some sixty miles away from Bombay city. The city consumes about 114 million gallons of water per day, of which nearly 94 millions come from Tansa. The water is brought to Bombay through two steel mains. For purposes of distributing the water the city is divided into three main divisions. The Hydraulic Department is in charge of the receipt and distribution of the water and has three important sections, viz., (a) distribution and waste prevention, (b) maintenance branch, and (c) construction branch.

Engineering Department : —The Engineering Department consists of the following important sections :—

Architectural Branch,
Mechanical Branch,
Works Branch,
Buildings Branch, and
Drainage Branch.

Public Health Department : —The Public Health Department is under the control of the Executive Health Officer of the Municipality. Amongst the most important activities of the Health Department are prevention of infant mortality and control and treatment of epidemic diseases, medical relief, conservancy and general sanitation including housing, welfare work, etc.

It is unnecessary to go into the details of the functions of fire brigades, garden department and market and slaughter house sections of the Municipality as these are more or less self-explanatory.

The following statement contains the details of the number of persons employed in various departments :—

TABLE II.

Name of Department	Number of workers employed.			
	Males.	Females.	Children.	Total.
1. Hydraulic Deptt.	2,198	6	13	2,217
2. City Engineering	4,841	209	124	5,174
3. Public Health	4,823	1,749	158	6,730
4. Fire Brigades	270	3	—	273
5. Garden Deptt.	277	52	—	329
6. Markets and Slaughter Houses	329	2	—	331
Total	12,738	2,021	295	15,054

It will be seen that a very large number of women is employed in the Public Health Department. They are mostly employed as sweepers. Women employed in the Engineering Department are generally engaged as coolies for road repair work. Children employed in the Public Health Department are employed as street boys for picking up rubbish.

Municipal labour is classified as ' permanent ', ' temporary ' and ' *badli* '. The whole of the fire brigade service and the conservancy staff belong to the permanent category. Nearly 83 per cent. of the Mechanical Branch of the city Engineering Department and 50 per cent. of the persons belonging to the Hydraulic, Engineering and Drainage departments are permanent. On the other hand, all the persons employed in Works Department of the City

Engineering Department are on a temporary basis because of the intermittent character of their work. Even temporary workers, however, are entitled to the benefit of Provident Fund. On the other hand, only the permanent workers are entitled to all Sundays and holidays, while the temporary workers have to work on all the days of the week. Both classes of workers are entitled to 15 days' casual leave in the year.

The Municipality has no special agency for recruiting labour and recruitment is done directly by the heads of departments. Sometimes notices are put up at the Municipal offices notifying vacancies and the candidates are selected after an interview. In some departments there is a system of registration of applications, especially in the Conservancy department. Each ward maintains a register for the purpose and workers who have registered themselves are given preference.

Although the Municipality does not employ any labour through contractors, all the work of the construction section of the Architectural Branch is carried out through contractors. A nuclear staff is, however, permanently maintained for supervising such workers.

There is very little turn-over of labour and in certain departments such as the Fire Brigade, it is practically nil.

Absenteeism seems to vary from department to department and is lower in departments in which leave has been allowed on a liberal scale and higher in departments in which leave facilities are less liberal. For instance, in the Fire Brigade Department where the workers are entitled to one month's leave on average salary, in addition to 20 days' casual leave, there is almost no absenteeism. In the Hydraulic Department it comes to about 12 per cent. and is more pronounced among the temporary workers. In the Health Department absenteeism is about 10 per cent. of the total. In this department the leave facilities are not as liberal as in the other departments.

Working Conditions.

Most of the work relating to the city Engineering and Hydraulic Departments of the Municipality is done in the open air and the question of lighting and ventilation, therefore, does not arise. The Municipal Workshop is well lighted and ventilated and the working conditions are, on the whole, satisfactory. The work of the Drainage section in the Engineering Department is particularly arduous and dirty. The renewal of chokes and the cleaning of sewers can be very dangerous, as the worker may inhale poisonous gases. The work of loaders and unloaders in the Health Department and also of the Halalkhore staff is very dirty although, there is no evidence to suggest that the nature of their work is injurious to their health. The workers doing this work are supplied with heavy boots and patties to enable them to walk on the refuse dumps. Satisfactory arrangements have also been made to serve these men with drinking water while on duty.

LEAVE.

Leave without pay for one month is granted to all municipal workers and the question of granting 15 days' leave with pay is under the consideration of the Municipality.

Permanent workers get one month's leave with pay for every 12 months' duty. They are also entitled to 15 days' casual leave per year. Temporary workers only get 15 days' casual leave for twelve months' service. In addition, all workers are entitled to 'injury leave' if the injury is caused in the course of their duties. Injury leave is given for a period of three months, one month on full pay and two months on half pay but may be extended up to a period of eight months, four months on full pay and four months on half pay.

Hours of Work.

Employees of the Fire Brigade have to be on call all the 24 hours. They generally start work at 6 O'clock in the morning and go on till 5 p.m. with a short rest interval between 7.30 and 8 a.m. and another rest interval between 11.30 a.m. and 2 p.m. In the Hydraulic department the hours of work are from 6.30 a.m. to 4.30 p.m. with an hour's rest interval between 11.30 a.m. to 12.30 p.m. The actual hours of work are thus 9. Pump attendants and sluice men work in three shifts of 8 hours each. In the Mechanical branch of the Engineering Department, the hours of work are 6.30 a.m. to 10.30 a.m. and 12.30 p.m. to 4.30 p.m. with a break of two hours from 10.30 a.m. to 12.30 p.m. The actual working hours are thus 8, the spread-over being ten hours.

In the Refuge Section there are two shifts of 8 hours each, while in the Pumping and Compressor sections there are three shifts again of 8 hours each.

In the Drainage Section there is only one shift from 6.30 a.m. to 11 a.m. and 1 p.m. to 5 p.m. with two hours interval between 11 a.m. and 1 p.m. The actual hours of work are thus 8½ and the spread-over 10½ hours. In the Works Branch the hours are from 6.30 a.m. to 11 a.m., with an hour's rest between 11.30 a.m. and 12.30 p.m.

Generally Sundays are closed days.

Sections of the Engineering Department to which the Factory Act applies observe the following hours of work :

6.30 a.m. to 4.30 p.m. with an hour's interval between 11.30 a.m. to 12.30 p.m.

Public Health Department.

For purposes of conservancy work the whole city is divided into wards and each ward is further subdivided into sections. The sections are also sub-divided into sub-sections and are in charge of a mukkadam. Each morning the mukkadam takes the roll call once at 5.30 a.m. and again at 9.30 a.m. to check the attendance of the conservancy staff. The place where the workers are asked to gather is called ' mustering place '. A roll call is again taken at 1 p.m. and finally in the evening a roll call is taken at headquarters. The hours of work of the conservancy staff are thus 5.30 a.m. to 9.30 a.m. and 1 p.m. to 5 p.m., the actual hours of work being 8 and the spread-over 11½. If a worker is not present at the time of the roll call a cross is made against his name and for each cross in excess of ten he is fined one anna. The staff employed in markets is engaged mostly on sweeping, cleansing washing, etc. The work is carried on early in the mornnig and late at night. The workers start at 4 a.m. and work in shifts of 8 hours, four hours at a time.

Wages and Earnings.

The Bombay Municipality has recently fixed a minimum wage for men women and children at Rs. 25, Rs. 21, and Rs. 18 p.m. respectively. The minimum wage for workers working in the Drainage Department is, however, Rs. 28 per month, due presumably to the more arduous character of their work. The Municipality has supplied the Committee with the wage rates prevailing in certain important departments and a statement containing this information will be found in Appendix I. It will be noticed from this statement that there are different grades for the same occupation in the different departments and there is thus no standardisation of occupations or wages, although the minimum wage prescribed brings about a certain amount of standardisation.

As the Municipality has laid down a minimum wage and has also prescribed a schedule of wages in different departments it was not thought necessary to take a wage census of municipal employees in Bombay. A rapid wage survey was, however, taken in the Conservancy and Hyraulic Departments in one of the biggest wards for the month of Marcd 1945 on a ten per cent. random sample basis and the following two tables summarise the results :

TABLE III(a).

Conservancy Department.

Occupation.	Average monthly earnings.
	Rs. a. p.
1. Plungermen	42 0 0
2. Nuisance Jemadars	52 0 0
3. Scavenger Mukkadams	51 0 0
4. Scavengermen	42 5 6
5. Scavenger women	41 3 7
6. Halalkhore Mukkadam	52 0 0
7. Halalkhore Mukkadam men	47 0 0
8. Halalkhore Mukkadam women	46 2 8
9. Cart drivers	42 2 0
10. Gulley flushing men	47 0 0

TABLE III(b).

Hydraulic Department.

Occupation.	Average monthly earnings.
	Rs. a. p.
1. Motor drivers	74 3 2
2. Masons	73 14 6
3. Fitters	70 13 5
4. Porters	52 2 2
5. Sluicemen	43 13 4
6. Plumbers	43 8 0
7. Malees	38 13 3
8. Labourers	38 8 4

Dearness Allowance.

Since the year 1940, the Municipality has been giving a dearness allowance to its workers and the scale of allowances has been changed from time to time. The following statement contains the details :—

TABLE IV.

Month and Year.	Scale of dearness allowance.
	Rs. a. p.
March 1940	2 0 0 p.m
January 1942	3 0 0 ,,
July 1942	5 0 0 ,,
September 1942	7 8 0 ,,
January 1943	10 0 0 ,,
May 1943	14 0 0 ,,
December 1943	16 0 0 ,,
April 1944	18 0 0 ,,
January 1945	22 0 0 ,,

There is a demand on the part of the workers that the dearness allowance should be linked up with the cost of living index number. It would, however, appear that the scale on which they are being compensated for dearness is the scale approved by the Provincial Government for its employees.

Workers in certain departments get certain special allowances. For instance, in the Drainage Department for night duty a special allowance is given at the rate which varies from annas two per day in the case of labourers to annas six per day in the case of mistries. Similarly, in the Works Branch of the City Engineering Department a special allowance of annas two per day is given to those employed on tarring work, to masons employed on drainage connections, etc.

Over-time.—In departments to which the Factory Act applies, over-time is paid for according to the provisions of the Act. In the Hydraulic Department, over-time is paid at the same rates as for ordinary work, and is calculated on the basis of a normal working day of 9 hours. Those employed on repairs of bursts of water mains are paid at 1½ times the ordinary rates.

Fines.—The Payment of Wages Act does not apply to a large section of the Municipal labourers. There seems considerable dissatisfaction among the employees in regard to the fines which are levied. The imposition of fines, it is alleged, is both capricious and often excessive. From the replies furnished by the Municipality to the Committee it is seen that on 31st March 1944, the Fine Fund stood at Rs. 5,25,612.

Housing.

The Bombay Municipality has provided housing for about 30 per cent. of its employees. The proportion of the workers housed varies from department to department. In the allotment of housing preference is given to workers, the nature of whose work makes it necessary that they should live near their places of work. For instance, the whole of the Fire Bridge staff has been provided with housing. The accommodation provided is generally a single-room 10 ft. × 8 ft. The rooms are, however, well ventilated and the sanitation is good. In some of the tenements in which the Fire Brigade men are housed, there are two rooms including a kitchen and a bath.

The Municipality has altogether 127 *chawls* and has hired six comprising 3,127 rooms in all. Each tenement consists of one room 12 ft. × 10 ft. In some of the newly built *chawls* there are double-room tenements, one a living room and another a kitchen. The rent charged is as follows :—

As. 8 for men workers,
As. 5 for women workers, and
As. 10 for Halalkhore staff.

These rents cover only the husband and the wife in the family. All others including adult members of the family have to pay rents at the following rates :—

Rs. 2 for each adult male, and
Re. 1 for each adult female.

As the rent is based on the number of persons living in the tenement a large family has sometimes to pay about Rs. 5 or Rs. 6 a month.

With a view to obtaining first-hand knowledge regarding the actual conditions of housing of municipal workers personal visits were paid by myself and the officers of the Committee to some of the *chawls* inhabited by municipal workers at Phalton Road and at Agripada. At Phalton Road some of the conservancy staff has been housed. The area of the room in the tenement is 10 ft. × 12 ft. There is no underground drainage. Water supply in some

what scanty. The rooms are however, electrically lighted. Lighting and ventilation are poor. In some of the single-room tenements as many as ten persons were found living. There are common latrines for each floor and also common bath rooms. New bath rooms have, however, now been constructed in the compound of these *chawls* in which towels and soaps are supplied. In Agripada the *chawls* are single storyed, the rooms facing each other with an open corridor in between. Being close to cattle stables, the sanitation round about is extremely bad. The central corridor is chiefly used for cooking and the walls are full of smoke and soot.

Apart from the Fire Brigade Service, the department from which the largest number of workers are housed is the Conservancy department. Nearly 75 per cent. of them have been provided with housing accommodation.

Judging from housing standards of industrial workers in Bombay city it cannot be said that Municipal workers are worse off so far as housing accommodation is concerned, although some of the *chawls* particularly those in Umarkhadi appear to require immediate improvement. Excluding cases of workers with families containing non-municipal employees, on the whole, the rents charged are reasonable.

Welfare Work.

The Bombay Municipality has a special Welfare Department under the Executive Health Officer. All welfare work is directly in charge of a Lady Welfare Organiser. Welfare activities are carried on with the help of the Fine Fund supplemented by a subsidy from the Municipality. The total expenditure on welfare is about Rs. 50,000 a year but a large proportion of it is spent on salaries and allowances. There are eleven welfare centres in the city. Each centre is in charge of two male and two female part-time workers. Some of the centres are located in stables belonging to the Health Department while others are housed in Municipal *chawls*. The atmosphere of the Welfare Centres in the stables is extremely foul. All the centres are run on the same lines. There are two sections in each, one for women and one for men. There are literacy classes for both in Marathi and Hindi. These classes appear to be popular. All the centres have a radio and indoor games like carrom and out-door games like volley ball for men, cricket for boys, etc. The activities organised for women include sewing, knitting and mother-craft. One of the centres, namely, that in the K.E.M. Hospital, is extremely good. There is a circulating library common to all the centres.

As compared to the Government Welfare Centres in Bombay City, the Municipal centres appear to admit of very substantial improvement. In the first place, most of them are very poorly housed and secondly, as they are only in charge of part-time workers, there is not much incentive for showing initiative and for making the centres more popular.

No special arrangements have been made for giving medical aid to employees of the Municipality, as they are expected to take advantage of the facilities provided by the Municipality and by Government for the general public. It is understood that the Municipality has recently approved of a proposal of having a travelling dispensary for their out-door workers.

The Municipality does not provide any crèches for the use of their female workers.

Primary education is free and compulsory in Bombay city and no special provision has been made for the education of the children of Municipal employees.

Provident Fund.—The Bombay Municipality has a scheme of Provident Fund for its employees to which both temporary and permanent workers are admitted. The rates of subscription are As. 1|4 per rupee of the monthly earnings including bonus for those whose monthly salary including bonus is not less than Rs. 50 and anna one in the rupee of the pay and bonus with the option of raising it to annas 1|4 if the subscriber so desires, for those getting less than Rs. 50 per month. The contribution to the fund is compulsory. The Municipality contributes an amount equal to that of the subscriber. The contribution of the Municipality is payable in the following circumstances :

> " If he shall die in Municipal service, or if he shall have completed five years' service or if he shall have attained the age of 55 years or if he shall have been duly certified as incapacitated for further service or if his services shall have been dispensed with for no fault of his own ".

According to the rules of the Fund, advances are made under certain circumstances. The amount standing to the credit of the Fund on 1st January 1944 was over Rs. 2 crores.

Employees of the Fire Brigade Department are entitled to a pension. It is understood that the Municipality has under consideration a scheme for paying retirement gratuities.

Trade Unions.—There is a considerable amount of organisation among Municipal workers. At present there are two Unions of these workers whose reported membership is 5,500 and 3,000 respectively.

General observations.

It is understood from representatives of the workers that their main grievances are as follows :—

(a) Inadequacy of the rate of the present dearness allowance,

(b) the basic minimum wage should be increased from Rs. 25 to Rs. 35,

(c) imposition of fines without proper enquiry.

(d) temporary workers who have put in a certain amount of service may be made permanent,

(e) certain classes of workers such as, loaders and unloaders and drivers who get no holidays in the year should be allowed proper holidays,

(f) All municipal employees should get one month's leave with pay ;

(g) there should be a general scheme of pensions and gratuity for all workers, and

(h) there should be immediate improvement in the housing of the workers.

The Bombay Municipality is perhaps the only Municipality in the country which has introduced a minimum wage for its workers. From the schedule of wages printed in appendix I and the figures of earnings quoted in this report, it is clear that the wages paid do not compare unfavourably with wages in similar unskilled and semi-skilled occupations in private industry in Bombay city, although the scale of dearness allowance is definitely lower than that prevailing in the cotton mill industry. In this connection, it may also be noted that, unlike the Bombay Port Trust, the Municipality has made no provision for supply of grains and other commodities at concession rates to its employees. It is noteworthy that the benefits of the Provident Fund Scheme have been extended to temporary employees as well and that there is no qualifying period for membership.

The leave rules appear to be fairly liberal except in the case of the conservancy staff who get no holidays at all. No complaints have been received regarding undue delays in the payment of wages nor about unauthorized deductions, although as stated already, there is much heart-burning among the workers in regard to the manner of imposing fines. A somewhat striking feature in this connection is that the Municipality has built up a huge Fine Fund amounting to over five lakhs of rupees.

The Municipality houses nearly 30 per cent of its employees and charges fairly reasonable rents for the accommodation provided. It is understood that it has under consideration the extension of its building programme.

One matter which would appear to admit of immediate improvement is in regard to the welfare activities of the Municipality. With a large Fine Fund at its disposal, such extension should not be difficult with the return of normal conditions in the country now that the War is over.

CHAPTER III.—KARACHI.

Employment.

According to the information supplied by the Karachi Municipal Corporation, the total number of workers employed by it was slightly over 3,000 on 1st January 1944. This number, however, includes all employees. From the investigations made it would appear that about 2,728 only are employed directly by the Corporation. Remarkably few women are employed, their number at the time of enquiry being only 123. They are mostly employed as sweepers. In addition to the above labour force, it is understood that at present about 300 casual labourers are employed for doing odd jobs. No contract labour is being employed even for purposes of road building and repairs and the Corporation employs its own staff for the purpose. If, as a result of the stoppage of capital works, workers lose their jobs they are gradually absorbed in permanent vacancies or are given *ex gratia* gratuity on the basis of length of service.

As compared to the pre-war period there has been no marked increase in the number employed which, in fact, has remained almost stationary due to stoppage of new works.

The labour is recruited direct by the departmental heads. There is no Labour Officer or any other officer for purposes of recruitment, but the Chief Officer of the Municipality personally enquires into the workers' grievances and is easily accessible to their representatives.

The conditions of service are governed by the Service Rules of the Corporation.

The workers are classified into the following categories :—

Schedule A for officers and clerks,

Schedule B—Those holding permanent non-pensionable appointments subscribing to the Municipal Contributary Provident Fund, and

Schedule C—Those holding temporary appointments created for a specified purpose, *i.e.*, casual labour who are paid at daily rates.

The proportion of schedule B workers to the total is approximately 90 per cent.

Hours of work.

Except in the case of peons, the hours of work are between 8 to 9 per day while, in the case of sweepers they are 8 only. The duty hours of sweepers are 7 a.m. to 11-30 a.m. and 3-30 p.m. to 7 p.m.

Wages and Earnings.

A vast majority of the employees of the Corporation have fixed scales of pay with graded promotions. The schedule showing the scales of pay for the different occupations is given as appendix II. In regard to the largest category of workers, *viz.*, sweepers, it is seen that the scale is Rs. 2o—½—22. Nearly half of the coolies are on a fixed pay of Rs. 22-8-0 per month, while the scale in the case of others varies from Rs. 22 to Rs. 25 and for some it is Rs. 25-1-30. Speaking generally, the starting pay for the majority of the municipal employees is Rs. 20 to Rs. 21 per month going up to Rs. 22-25 per month. So far as casual workers, such as coolies are concerned, they are paid As. 14 per day plus As. 10 per day as dearness allowance.

The rate of dearness allowance is Rs. 14 p.m. to those getting up to Rs. 40 p.m. and 10 per cent. of pay with a minimum of Rs. 14 to those getting about Rs. 40 p.m. It is understood that the allowance will shortly be raised to Rs. 18 p.m. In addition, since 1st Nov. 1944, compensatory local allowance at the rate of Rs. 4 upto a pay of Rs. 25, Rs. 5 from Rs. 26 to Rs. 36 and Rs. 7-8 from Rs. 36 to Rs. 60 is being paid. Thus, a sweeper putting in a full month's attendance would get Rs. 20 by way of wages plus Rs. 18 as dearness allowance plus Rs. 4 as compensatory allowance making a total of Rs. 42 p.m.
Rs. 42 p.m.

Wages are paid monthly direct to the workers. Generally they are paid within ten days of their becoming due but an inspection of the records of payment revealed that in the case of certain departments there were long delays and the workers had to wait for their wages till about the 16th or 17th of the following month. It was stated that this was due to account and audit objections.

Fines are imposed for negligence, etc., but these are not credited to any special Fund and are merely regarded as deductions from wages.

Holidays and Leave.

Municipal peons get all Sundays and gazetted holidays as off days. Other workers such as sweepers, scavengers, coolies, etc., are given half-holidays on Sundays and on a few important festival days.

All the employees are entitled to 20 days casual leave with pay in the year, while female employees get in addition maternity leave with full pay for a period not exceeding 20 days at a time. Workers injured on duty can get leave with pay up to a maximum of three months. According to the Municipal Rules, the workers are entitled to privilege leave to the extent of one month in a year subject, however, to there being no extra cost to the Corporation, that is to say, only in cases where no substitute is required to be appointed. As a result of this rule very few workers are able to enjoy the benefit of this privilege.

Housing.

The Corporation houses about 50 per cent of its employees and charges no rent. It owns about 500 tenements out of which about 330 are ear-marked for sweepers. The later consist of one room 9½ ft.× 10½ ft. with a kitchen and a court-yard. They are well ventilated. The Corporation has spent about Rs. 2½ lakhs for the construction of these quarters and they are provided with the amenities of a Reading Room, a Tea room, a Grain shop and a high level tank to enable the sweepers after returning from work to have a satisfactory bath. The arrangements for the supply of water and sanitation are, however, common. The remaining quarters are also one-room tenements. These are not so well constructed as the scavengers' quarters. Some of these are situated

in low lying areas with no drainage or sanitary arrangements. It is understood that the Corporation is anxious to extend its building programme but has not been able to do so owing to the difficulties of construction created by conditions resulting from the war.

House rent allowance of Rs. 4 per month is paid to all peons and havildars if they are not supplied with free quarters. The other employees, however, receive no house rent.

In regard to workers not housed by the Municipality, some live in the Lyari quarters in huts and similar *kutcha* structures. This quarter is very greatly congested and the housing conditions in it are far from satisfactory. The rents paid vary from annas eight to rupee one per month. Those who live in the city have to pay a rent of about Rs. 4 to Rs. 6 per month for a single-room tenement.

Welfare Activities.

Attached to the Municipal workers' settlements are Welfare Centres in which there are dispensaries. In these centres workers' children are bathed, treated and also given milk. These centres are attended by doctors on certain days. It is understood that the Corporation will shortly have mobile dispensaries in charge of doctors to visit the houses of the workers.

The Municipality has started five Fair-price shops for municipal employees where important commodities are sold at cost price. The benefit of this to the worker works out to about Rs. 2 per month per family.

As there is free and compulsory education in Karachi, no special schools have been provided by the Corporation for its own employees.

There is a compulsory contributory Provident Fund which was started in 1938 for employees holding permanent non-pensionable appointments, *i.e.*, schedule B. The rate of subscription is 6¼ per cent. of the monthly salary and the Corporation contributes an equal amount. Except in the event of death, compulsory retirement or retrenchment, no employee who joined after 1938, is entitled to the Corporation's contribution unless he has completed 15 years' service. Those who joined the service of the Corporation before 1938 and have put in at least 15 years' total service are entitled to a gratuity equal to a month's pay for every completed year of service before the introduction of the Provident Fund. As the Provident Fund is compulsory and there is no minimum income limit or any other restrictions prescribed, all the employees of the Corporation excluding casual labourers are able to take advantage of this scheme.

Trade Unions.

There is a well-organised Union of the Municipal workers and the relations between the Corporation and representatives of the Union appear to be cordial.

General Observations.

One of the complaints of the workers is that for the same occupation there are different scales of pay in the different departments. This complaint appears to be correct and it would appear that there should be some standardization of wages in the same occupations in the different departments. It has also been contended by the workers' representatives that those who are not provided with houses should be given a house-rent allowance. This complaint seems to be justifiable in as much as the municipality supplies housing free to some of the workers. Although there is no obligation on them to do so, they grant maternity leave up to 20 days, but it is contended by the repre-

sentatives of the workmen that the period of such leave should be the same as provided for under the Maternity Benefit Act in many Provinces, namely, four weeks before and four weeks after confinement.

Judging from existing standards of labour conditions in the country, municipal labour at Karachi appears to be fairly well treated. Taking into account the benefit of the grain shops, the least skilled worker is able to make about Rs. 44 per month. The leave privileges are liberal, but the only difficulty is that, because of the condition that leave can be granted only when no substitute has to be appointed, a fair proportion of the workers are not able to enjoy the benefit of the privilege. There is considerable room for improvement in the housing provided, although the Municipality has supplied housing to nearly 50 per cent. of their employees. The housing provided for the Fire Brigade workers is very good. The proposal of the municipality to have mobile dispensaries will provide considerable relief to the sick employees.

Adequate provision appears to have been made for safeguarding the future of the employees by instituting a Provident Fund scheme of which, unlike many Provident Fund systems in the country, almost all the employees are members.

CHAPTER IV—NAGPUR.

Employment.

The Nagpur Municipality is one of the oldest municipalities in the country having been established in the seventies of the last century. The Municipal authorities have not replied to the Committee's questionnaire but it is understood that in August 1944, the total number of workers, excluding clerical, supervisory, teaching staff, etc., employed by them was about 2,305. As compared to the pre-war period, employment has increased by about 200, the addition being mainly to the category of Scavengers. Of the total number employed, 1486 were men, 809 women and 10 children. Women are employed principally as scavengers. The bulk of the workers are employed in the conservancy department of the Municipality. Labour required for Public Works is engaged through contractors, 68 in number. The Municipality exercises no control whatever over the conditions of work and wages of labour employed through contractors. The contract system is being retained on the ground that it saves the Municipality the work of supervision. It is understood that contract labour receives only two-thirds of the wages paid to labour employed directly by the Municipality.

Labour is mostly local although a proportion of the scavengering staff does not belong to the Central Provinces as it was recruited from outside during a strike of the scavengers some years back. At present very little new staff is being recruited. However, whenever workers are required they are recruited through Jamadars and Mates. In the Conservancy department there are complaints of harassment of the sweepers by Jamadars and also allegations of bribery and corruption. The Thakkar Committee of 1939* have also referred to these complaints and allegations.

Labour is classified into three categories, viz., permanent, temporary and casual, the bulk of the labour such as scavengers being classified as temporary. There is no fixed principle in regard to making a temporary worker permanent, such as length of service, etc. Permanent workers enjoy the following privileges :—

(a) They are entitled to contribute to the Municipal Provident Fund,

(b) They get privilege and sick leave,

* Report of the Committee page 11.

(c) They have a right of appeal in case of dismissal,

(d) They have regular scales of promotion,

(e) They can become members of the Municipal Employees' Co-operative Society.

Temporary workers are further sub-divided into regular temporary and temporary. Scavengers are classed as regular temporary. They get only sick leave with pay and no privilege leave or any other facilities enjoyed by the permanent workers. Purely temporary workers such as those working on the Municipal Sewage farms have no special privileges.

Casual labourers are daily-rated and are regarded as substitutes.

No reliable statistics of absenteeism are available but it is understood that among sweepers absenteeism amounts to about 9 per cent.

The labour force is very stable as will be seen from the following figures :

TABLE V.

Length of service.		Percentage of Workers.
0 and 1 Year	...	12%
1 and 5 Years	...	11%
5 and 10 Years	...	23%
Over 10 Years	...	54%

It will be seen that 54 per cent. of the workers have a service of over 10 years. The turnover is higher among sweepers.

Working Conditions, hours of work and Shifts.

The hours of work and conditions of service differ according to departments. In the Conservancy department, the hours of work for scavengers are from 5 a.m. to 6 p. m. with a recess of three hours from 11 a.m. to 2 p.m. Actually, however, the work is started at about 6 a.m. In the Water works and Drainage departments there are three shifts of 8 hours each, the shift hours being 4 a.m. to 12 noon, 12 noon to 8 p.m. and 8 p.m. to 4 a.m. Although in the Scavengering department a large number of female labour is employed, the supervisors are generally males.

While employees in the Municipal Printing Presses get all Sundays and gazetted holidays, the scavengering staff gets only half a day off per week. Certain categories of workers such as street lighters, rat catchers, cattle impounders etc., get no holidays at all.

There are Standing Orders for regulating the relations between the Municipality and its employees. These cover questions such as conditions of service, leave, pay, disciplinary action etc. There are certain special regulations for sweepers.

Permanent workers get 15 days' privilege and 15 days' sick leave per year with pay, while temporary workers get only 15 days' sick leave per year with pay.

Wages and Earnings.

Except for casual workers who are paid weekly payment of wages is made monthly, usually before the 10th of the month following the one for which they are due.

The table below gives the wages in certain selected important departments :

TABLE VI.

Department.	Occupation.	Monthly Rate of pay.
		Rs.
Water Works Establishment	Fitter Operator	30—2—60
	Turner	30—2—60
	Mechanic	30—½—40
	Plumber	30—½—40
	Linemen	15—1—20
	Khalasis	12—1/5—20
	Malis	12—1/8—15
	Chaukidars	12—1/8—15
	Sweepers	15
Health Deptt. Drainage Establishment	Cooly	12
	Male sweeper	15
	Female sweeper	11 to 11/8
Surface drains	Male sweeper	15
	Female sweeper	11
	Cartman	15
	Bhisti	15
	Pit cleaner-sweeper	15
Road Cleaning Establishment	Refuse carters	15 to 15/8
	Rith cleaners	11
Public Latrine Establishments	Male sweeper (night soil and sullage carter)	15/8
	Male sweeper	15
	Female sweeper	11 to 11/8
Private Latrine Establishment	Male sweepers	15 to 15/8
	Female sweepers	11 to 11/8
Workshop Establishment	Carpenter	25–28
	Fitter	20–26
	Blacksmith	20
	Cooly & Chowkidar 15 plus 5	20
	Cooly	13–15
P.W.D. Establishment	Chaukidar	9

It will be seen that male scavengers get a fixed pay of Rs. 15 p.m., while female scavengers get Rs. 11 p.m. The rate for male coolies varies from department to department from Rs. 12 to Rs. 15 p.m. There are no scales of pay for unskilled workers but in some departments skilled workers, such as fitters, turners, etc., have a scale of Rs. 30 going up to a maximum of Rs. 60. Rat catchers are on piece-rates which are so fixed as to bring in to these men a monthly income of about Rs. 10. There has been no change in the basic rates of wages except in the case of casual workers who now receive from as. 8 to as. 12 per day.

Certain types of workers such as scavengers have, it is understood, some additional income by way of tips. etc., from householders.

Fining, particularly of scavengers, is reported to be heavy and sometimes in excess of the provisions of the Payment of Wages Act.

Dearness allowance.—Dearness allowance is paid to all employees except casual and piece-rate workers. It is paid at the scale at present applicable to employees of the Provincial Government which is Rs. 11 p.m. to those drawing Rs. 40 or less per month and Rs. 13 to those drawing more than Rs. 40 p.m.

Housing.—The bulk of the municipal workers have not been provided with housing. In the Imamwada area a few quarters have been built for scavengers and these are given rent-free. They are mostly one-room tenements and the general conditions of ventilation and sanitation are very unsatisfactory. A few quarters are also provided rent-free to some of the workers belonging to the Pumping Station and to the Sewage farm. These are slightly better than those provided for scavengers. On the whole, the present housing conditions of municipal workers are extremely unsatisfactory. It is, however, understood that the Municipality has undertaken a scheme for housing about 40 families of scavengers at a cost of about Rs. 25,000. Under this scheme the housing provided will be far more commodious and will also contain separate sanitary arrangements for each family.

Where the workers have built their own huts they pay a ground rent of about annas eight to Rs. two per year. Water supply is inadequate and sanitary arrangements are extremely unsatisfactory.

Housing conditions in the case of municipal employees not living in municipal tenements are still worse. A graphic picture of these conditions is to be found in the following extract from the Thakkar Committee's report :

> " In Nagpur itself the members of the Committee had to walk over unnameable filth or wade through the open sewers of the town to visit some of the sweeper busties.... The whole atmosphere of these localities is foul and there are hardly any arrangements for sanitation and the eye meets with disgusting and loathsome sights all over—living in a world of smells and sights day and night, the sweeper himself becomes a human waste heap, a part and parcel of the same smells and sights ".**

These are hard words but true none the less.

Welfare Work.

The Municipality has not undertaken any special welfare activities for its employees, except that it has started a Co-operative Society only for permanent workers and has a scheme of Provident Fund and Compassionate Gratuity.

According to the bye-laws of the Municipality " every servant appointed or promoted by the Municipal Committee on or after the 1st April 1925 to an office of which the pay is not less than Rs. 15 p.m. shall be required to subscribe at a rate of 6-1|4 per cent. or one anna in the rupee to a Provident Fund ". The Municipality contributes an equal amount. It is however, understood that the majority of municipal workers, including scavengers are not covered by the Provident Fund Scheme. The Municipality has recently started a Compassionate Fund for the relief of distressed families of its workers to which it contributes Rs. 2,000 per annum. Gratuities and pensions are given out of this Fund to the dependants of deceased workers on low rates of pay. The maximum amount paid being equivalent to 12 months' pay or wages.

General Observations.

Apart from the workers employed in the Municipal Press, the general conditions of work and wages appear to require considerable improvement particularly in the case of the conservancy staff. Speaking generally, the basket system of sanitation still prevails in Nagpur and the work of the scavengering staff is thus undoubtedly of the most loathesome type. There is also considerable insecurity of service owing largely to the petty tyrannies of Mukadams and such other inferior supervisory staff. Nor is there any provision for the future of a large proportion of the workers by way of a Provident Fund, etc.

** Report of the Committee page 17.

In regard to wages and earnings, while the basic wages do not compare unfavourably with wages paid for unskilled work in the cotton mill industry in Nagpur, the difference in the amount of dearness allowance paid is very considerable. In the cotton mills at Nagpur the present rate of dearness allowance is about Rs. 30 p.m. The cost of living index number for Nagpur on the pre-war base was 354 in August 1944.

It has already been stated that housing conditions of municipal workers need improvement. There seems also an urgent necessity for organising welfare work for employees of the Municipality.

Fining in some cases is reported to be as high as Rs. 2 at a time and the application of the Payment of Wages Act may bring relief. Although the Maternity Benefit Act is not applicable to female sweepers the Municipality grants maternity leave for four weeks and pays maternity benefit at the rate of full wages inclusive of dearness allowance.

A very large proportion of the workers, particularly sweepers, are indebted as they are unable to meet their daily needs out of the wages earned. In a large number of cases, however, they supplement their income considerably by private work.

There is in Nagpur a Trade Union of scavengers but it is neither recognised nor registered. It is reported that in November 1944, it had a membership of about 314 persons.

CHAPTER V—CAWNPORE.

The Municipal Board, Cawnpore, did not reply to the Committee's questionnaire nor was information relating to municipal labour easily available from its records. The following paragraphs are therefore based on the information collected on the spot by the officers of the Committee.

Employment.

The Cawnpore Municipal Board had in its employment in January 1944, 2,266 workers in five departments, namely, Engineering (Road gang and park labour), Lighting, Health, Water Works and the Workshop.

The following table shows the number of persons employed in August 1939 and January 1944, in five departments of the Board :

TABLE VII.

Department.	No. of persons employed.	
	August 1939.	Jany. 1944.
1. *Engineering*		
Park and arboriculture labour	64	82
Road Gang and Mason gang :		
Maties	16	60
Bhistis	20	20
Beldar	118	118
Raiza	60	60
Cart Mate	1	1
Masons	6	6
2. *Lighting.*		
Lamp lighters	53	53
K. Oil lamp lighters	3	3
Linemen	12	12
Mistries	2	2
Beldars	12	12
Driver	1	1
3. *Workshop.*		
Carpenters, blacksmiths, motor-mechanics, welders, turners, cleaners, hammer-men, fitters, coolies, etc.	41	41
4. *Conservancy*	1,126	1,520
5. *Water Works*	186	275
Total ..	1,721	2,266

It will be seen that as compared to the pre-war period there has been an increase in employment by about 31.7 per cent. This increase, however, is most marked in the Conservancy Department. All the above workers are directly employed by the Municipal Board. Municipal works such as construction of roads, buildings, etc., are, however, given on contract and on these the contractors employ labour recruited by themselves. The Municipality has no control over the conditions of work or wages of such labour.

Municipal labour is classified into permanent and temporary. The categories of workers shown in the Table above are employed on a permanent basis. In addition, there are some temporary workers employed in the Municipal Workshop and by the Health Department as members of conservancy staff. The latter are employed during the rainy season and during epidemics. Permanent monthly-paid workers in the Municipal workshop and Water Works Department are allowed the privileges of Provident Fund, bonus and medical leave (earned) according to the Municipal rules.

Service records are maintained only for the permanent workers paid at monthly rates.

There is no system of apprenticeship except in the case of workers employed as lighting staff. In this department unpaid apprentices are taken. They are, however, paid for the period they work as substitutes. The period of apprenticeship is not counted towards service.

Statistics relating to labour turnover are available only for the staff employed in the Engineering Department, Water Works and Municipal Workshop. These statistics show that while, as compared to the pre-war period, labour turnover has increased, it is not very high. On the other hand, absenteeism appears to be on the high side being about 18 per cent. in the Municipal Workshop.

There are no Standing Orders as such for the workers but conditions of work in the Conservancy Department are governed by an agreement between the Municipal Board and the Scavengers' Union. In the Municipal Workshop Fundamental Rules are generally applicable. One month's notice is required if a worker leaves employment.

Appointments in various departments are made by the heads of departments such as the Engineer, Superintendent, Water Works, Health Officer, Lighting Superintendent and Park Superintendent, etc. Appointments of sweepers, coolies, etc., are made by subordinate officers like Jamedars and Overseers.

There is no Labour Officer. Complaints, if any, are looked into by the heads of departments.

Working conditions, hours of work and shifts.

In the Municipal Workshop and Water Works conditions of ventilation and lighting are good. There is, however, no special arrangement for protection against heat. There are no shelters where the employees can take rest during the interval.

Holidays without pay are given to workers employed on a daily wage on important festivals. Conservancy staff get only half holidays on such festivals. In the Municipal Workshop, holidays with pay are given on all Sundays and on 23 days in the year for festivals, etc. In the Water Works, the Workshop is closed on Sundays. The Pumping Station works for 24 hours on all

seven days of the week. Holidays for festivals, etc., are given to workers in the Workshop only.

All permanent employees of the Municipality are entitled to medical leave on half average pay for a total period of one year in the whole of their service.

In the Lighting Department the hours of work are nine per day. Lamp lighters (electric) work both in the evening and morning and kerosene lamp lighters only in the evening. The working hours change according to lighting time in various months and on different days in the month according to the phases of the moon.

In the Municipal Workshop, there is one shift of nine hours with an hour's interval for rest. The working hours are 8 a.m. to p p.m. with the rest interval from 1 p.m. to 2 p.m. The total spread-over is thus ten hours per day.

According to the terms of an agreement between the Municipal Board and Scavengers' Union, eight hours have been fixed as the daily working hours. The timings are 5 a.m. to 10 a.m. and 3 p.m. to 6 p.m.

In the Water Works, there are three shifts of eight hours each in Pumping Station. In the Workshop there is only one shift of 9 hours.

Wages and Earnings.

Rates of wages for the different occupations will be found in Appendix III.

It will be seen that sweepers who form the bulk of the workers were, in 1939, in the scale of Rs. 10½,—12½ in the case of males and Rs. 9½ —11½ in the case of females. Since then the wages have been increased by 25 percent. In the Workshop skilled workers such as fitters receive a fixed wage of Rs. 20 per month, while carpenters and Blacksmiths are in the grade of Rs. 30 to Rs. 35. In the Water Pumping Station, drivers are in the scale of Rs. 45—1—55, Firemen and Fitter Attendants in the scale of Rs. 20—1—25. Khalasis in this department are either in the grade of Rs. 14—1—18 or Rs. 16—1—20.

Speaking generally, the basic wages have not changed since August 1939. Rates of pay, have, however, been increased in some cases. For instance, the rates of wages for workers employed on daily wages as road gang and mason gang have gone up by about 100 per cent. on an average between 1939 and 1944. Motor drivers have also been given an increment of Rs. 10 p.m. It would appear that where the Municipal Board had to compete in the open market for the recruitment of labour, the Board has had to pay as much as 100 per cent. more and in certain cases the actual increase is even higher than 100 per cent., while to the permanent employees of the Board, no increases have been given in the basic wages except in a few cases.

Dearness allowance is paid to all permanent employees on monthly rates at a flat rate of Rs. 11 per month to those on a monthly pay upto Rs. 40 and at Rs. 14 p.m. for those on a pay between Rs. 40 and Rs. 200 p.m. This is in accordance with the Provincial Government's scale for their employees in Cawnpore.

Overtime is paid only to workers in the Waterworks. The payment is made according to the provisions of the Factory Act. Overtime is not compulsory. A separate register for the payment of overtime is maintained.

Deductions for Provident Fund and damages to tools, etc., if any, are made from all municipal workers. In the case of lighting staff, deductions are also made for late coming and absence. Deductions for house rent and subscriptions to Co-operative Societies are made from members of the conservancy staff.

Fines are imposed for indiscipline. There is no Fine Fund as such for workers employed in the various departments except in the Municipal Workshop where a Fine Fund is maintained. The fund has a very nominal amount at its credit. The Executive Officer of the Board is in charge of the Fund.

Payments are made monthly. Usually the date for payment is between the 5th and the 10th of the next month.

Housing.

A few quarters have been provided rent-free for labour employed in parks and gardens near the important parks. Quarters have also been provided for the sweepers employed by the Board. These quarters have been built in four localities. The total number of quarters provided is 208 and it is estimated that about 500 workers live in them. Thus, about one-third of the scavengers are housed by the Municipality.

The quarters are of three types—one-roomed houses, two-room houses and houses with one room and a verandah. Single rooms are generally 10 ft. × 8 ft., the dimensions of the verandah being 8 ft. × 5 ft. The monthly rent varies from Re. 1 and Rs. 2 per quarter. These houses have pucca walls. In some cases even the floors are paved with bricks. The roofs are either pucca or thatched with tiles or tin. There are complaints that regular repairs and white washing is not done. In a large number of cases more than one family lives in one quarter. Common water taps and latrines for males and females saparately have been provided in each *ahata*. Acute housing conditions in the city have led to congestion in these quarters as well.

These quarters are in a very unsatisfactory condition. There are open drains all round and the compounds are in a filthy condition. Nor is adequate provision made for the supply of water and sanitary arrangements.

About 30 workers out of a total of 275 working in the Water Works have also been provided with rent-free quarters which are one-room houses. Common latrines and water taps have been provided.

Welfare Work.

The Cawnpore Municipal Board has undertaken no scheme for labour welfare. They have, however, instituted a Provident Fund which is open to all permanent employees who get Rs. 20 or more per month as basic wages. The contribution of the employee is As. 0-1-6 per rupee, while that of the Board is 9 pies per rupee. As the bulk of the workers are in receipt of a basic wage of less than Rs. 20 p.m., a very small percentage of the employees are able to be members of this Fund.

Gratuity.—Those who are not entitled to subscribe to the Provident Fund are given a Gratuity at the time of retirement. The rate is one month's salary for every five years' service subject to satisfactory work.

Trade Unions.

There are three Labour Unions, one in the Lighting and two in the Conservancy departments. The Municipal Electric Workers' Union which belongs to workers in the Lighting Department is an unregistered body. The two other unions, namely, Scavengers' Union and Mehtar Sabha belong to the conservancy staff. Of these, the Scavengers' Union is more powerful. There have been agreements between Scavengers' Union and Municipal Board on various occasions mostly after strikes. There have been several strikes in the past fifteen years. It would appear that in most of these strikes the strikers have met with a certain amount of success.

General Observations.

The wage level of the municipal employees in Cawnpore is much lower than that prevailing in the local large scale industries. There is also a marked difference between the two in the scale of dearness allowance paid. Some provision exists for safeguarding the future of the workers but this is on a much less liberal scale than what is to be found in other Municipalities.

CHAPTER VI.—LAHORE.

Employment.

The Lahore Municipality employs about 4,000 persons, the vast majority of whom are males. Some of the workers are employed whole-time, while others are employed part-time only. The bulk of the employment is accounted for by sweepers and coolies. As compared to the pre-war period employment went up from 3,187 to 3,966 in November 1944. The Municipality employs its labour directly, although contractors are engaged for construction of municipal buildings and roads. No information is available as regards the number of workers employed by contractors. The Municipality lays down no conditions regarding work and wages so far as contract labour is concerned.

The Lahore municipal administration is at present in charge of the Punjab Government and the Punjab Civil Service Rules apply to employees of the Municipal Corporation. The daily-rated staff is entitled to 10 days' casual leave with pay per year, while permanent workers get 15 days' casual leave in a year and privilege leave with pay on the basis of the number of days worked divided by 22. Any worker with a grievance can approach the Chief Officer but there is no specially appointed officer to look into the grievances of the staff.

Hours of Work.

The hours of work for sweepers are different according to the nature of their duties. In regard to whole-time road sweepers, the hours generally are from 9 a.m. to 11 a.m. and 3.0 p.m. to 5.30 p.m. for picking and 11 p.m. to 1 a.m. and 1.30 p.m. to 3.30 p.m. for sweeping. The hours of work for sweepers in the Conservancy Department appear to be from 7 a.m. to 11 a.m. and 1 p.m. to 5.30 p.m. For yet another class of sweepers the hours of work are from 8 a.m. to 2 p.m. and 4 p.m. to 6 p.m. In regard to part-time sweepers the hours are from 6 a.m. to 9 a.m. and 1.30 p.m. to 4.30 p.m.

Bhistis.—They are mostly part-time employees whose hours of duty are per day, the spread over being 12 hours per day.

Coolies.—The hours of work for coolies are 8 per day with half an hour's rest interval. Usually their working hours are from 10 a.m. to 6 p.m.

Some categories of municipal workers such as cartmen, conservancy staff, etc., get no weekly rest day, while others such as sweepers, part-time Bhistis, etc., get only half a day off on Sundays.

Wages and Earnings.

Appendix IV contains a statement showing the wages in the different departments. From the numerical point of view the most important categories of employees are sweepers numbering 1,810, of whom 780 are whole-time and the remaining part-time. At the time of the enquiry it was found that the rate of wages of whole-time workers varied from Rs. 13 to Rs. 15 p.m. a very large bulk of them being in receipt of a wage of Rs. 15 per month. The rate of wages of part-time sweepers varies considerably but a vast majority (786 out of 1,030) are in receipt of Rs. 10 per month. Numerically the next important class is of Bhistis. Out of 835 Bhistis 24 were whole-time and 811 part-time. The basic rate of wages of whole-time Bhistis varies from Rs. 10 to Rs. 15 but a large majority of them get Rs. 15 per month. The wages of part-time Bhistis vary considerably but the largest number (642) are in receipt of Rs. 6 per month. The third most

important category from the point of view of employment is of coolies numbering 355. Their monthly rate of wages varies from Rs. 5 in the case of boys to Rs. 20, but more than two-thirds of them are in receipt of a wage of Rs. 15 per month. The fourth most important category is of peons numbering 203. Their wages vary from Rs. 15 to Rs. 20. For the duration of the war, however, they have been placed in the grade of Rs. 15-1-19 and given two advance increments. From the information collected regarding the basic wages during the pre-war period and during November 1944, it would appear that so far as sweepers are concerned there has been a tendency to employ more whole-time workers. It appears also that while the majority of whole-time sweepers in 1939 were paid Rs. 12 per month at present they are paid about Rs. 15 per month, whereas in the case of part-time sweepers while the majority were in receipt of Rs. 8 per month in 1939, they now receive Rs. 10 per month.

As regards Bhistis, while their number has gone up from 662 during 1939 to 835 in 1944, it would appear that so far as the majority of them is concerned the basic wage rate has remained the same, *viz.*, Rs. 6 p.m. In regard to coolies, as compared to 1939, there appears to be no striking change so far as the wage rate is concerned.

Dearness allowance.—The following is the scale of dearness allowance sanctioned in the case of full-time employees of the Lahore Municipality :—

TABLE VIII.

	Dearness allowance.
Pay upto Rs. 30/- p.m.	Rs. 11/- p.m.
Pay from Rs. 31 to Rs. 40/- p.m.	Rs. 12/8 p.m.
Pay from Rs. 41/- to Rs. 100/- p.m.	Rs. 14/- p.m.
Pay from Rs. 101/- to Rs. 150/- p.m.	Ten per cent of pay or Rs. 14/- whichever is greater.
Pay from Rs. 151/- to Rs. 250/- p.m.	Ten per cent of pay.
Pay from Rs. 251/- to Rs. 275/- p.m.	At such rate which will make the total of pay and D.A., Rs. 275/-.

In the case of part-time employees dearness allowance is paid according to the following formula :—

$$\frac{\text{Pay} \times \text{Rate of dearness allowance sanctioned by Government in the case of permanent employees}}{15}$$

To illustrate—A part-time sweeper on **Rs. 10 per month would be entitled to** the following dearness allowance :—

$$\frac{\text{Rs.}10/- \times 11}{15} = 22/3 \text{ or say Rs. } 7 \text{ p.m.}$$

No provision exists for the supply of grain or cloth at cheap concession rates.

It is understood that the practice of fining is pretty common and fines imposed are sometimes very high. Fines are credited to the Income account of the Corporation. There is little or no overtime work.

The wage period is a calendar month for all the workers. There are no fixed dates for payment of wages which are sometimes paid as late as the 14th of the month following the one for which they are due.

Housing.

The Municipality has provided no housing for its employees. The workers live in private quarters mostly one-room 10 ft. × 9 ft. The rent is

about Rs. 4 p.m. The conditions of their quarters were entirely unsatisfactory. There are common latrines and the water supply is obtained from taps on the wards.

Welfare Activities.

The Municipality has not provided any special amenities for medical relief, education, recreation, etc. There is, however, a Provident Fund.

For purposes of the Fund only such employees of the Corporation as hold a permanent post substantively under the Municipal Committee and whose pay is not below Rs. 20 p.m. are entitled to contribute to it. The rate of contribution is Anna. 1 per rupee of the pay of a member. The Corporation contributes an equal amount. Any employee who has put in more than 5 years' service has a right to claim contribution. The Corporation permits advances under certain conditions from the Provident Fund. Those getting less than Rs. 20 p.m. can become members of the Fund at the discretion of the Corporation.

Special Problems.

It is reported that there is acute shortage of labour in Lahore, as a result of which workers experience considerable difficulty even in getting the leave due to them. There is an insistent demand on the part of the municipal staff for getting a weekly day of rest.

CHAPTER VII.—MADRAS.

Employment and Working Conditions.

The total number of workers including supervisory and clerical staff employed by the Madras Municipal Corporation as on 1st January 1944 was 7,855, out of whom 7,453 were adult workers working in the following departments :—

TABLE IX.

Departments.	Workers employed and paid directly by the Municipality.
Works Department	3,200
Health Department	2,925
Water Works Department	67
Special Works Department	833
Electrical Department	210
Mechanical Engineering	218
Total	7,453

The labour is mostly local except those working in Conservancy department who are drawn from the Northern districts of the Madras Presidency.

There are no special Standing Orders for the employees of the Corporation but they are governed by the Corporation Service Rules which are applicable to the entire staff of the Corporation. The workers are divided into two categories (a) temporary, and (b) permanent. About 80 to 83 per cent. of the labourers are permanent. The difference between these two categories is that bonus or gratuity is paid to a permanent labourer if he has served for

only ten years but temporary workers get this benefit only when they put in a minimum service of 15 years. Permanent labourers are also eligible for increments in their scales of pay and get other privileges such as casual and sick leave, whereas temporary labourers are not eligible for these privileges.

The representatives of Municipal workers have stated that some workers remain temporary even after 20 or 30 years' service and that several disabilities are attached to them in the matter of gratuity, leave, medical relief, dearness allowance, etc., only because they are not made permanent. On enquiry this grievance appears to be well founded. It is, however, understood that the Corporation propose to remove the disability of temporary workers in regard to gratuity. It is true that owing to the exigencies of the work the Corporation may not find it feasible to make all the temporary staff permanent but it should certainly be possible to take a nucleus of this category on the permanent muster roll.

The Corporation recruits its labour direct and maintains service rolls for all its workers. It is stated that absenteeism is much more in evidence after festival days and pay days than on other days.

Information regarding the length of service of workers in the Corporation is not available for all the departments but the following figures are of interest :

TABLE X.

Length of service.	Number of workers.		
	Water Works	Electrical Department.	Mechanical Engineering section.
Between 0 and 1 year	—	11	6
Between 1 and 5 years	16	26	15
Between 5 and 10 years	5	66	42
Above 10 years of service	51	107	143

It is clear from the above figures that a very large proportion of the total workers have put in service for more than 10 years. Thus, the labour turnover is extremely small as will be seen from the following statement :

TABLE XI.

Department.	Year.	Number of workers employed duirng the year.	Number of wrokers who left during the year.	
			Permanent.	Temporary.
Water Works	1938	60	*nil.*	*nil.*
	1943	72	*nil.*	*nil.*
Electrical	1938	82	3	5
	1943	82	1	5
Mechanical Engineering	1938	242	..	10
	1943	240	..	15

In addition to 15 days' casual leave per year to which permanent employees are eligible they are granted holidays according to the Negotiable Instruments Act and in the case of the departments to which the Factories Act applies, according to the Act. Half holidays are given to the labourers on Saturdays

and certain communal days. In addition, every temporary labourer who has put in more than 2 years' continuous service and every permanent labourer is given leave with full pay for 15 days in the year.

Hours of Work.

These naturally vary from department to department. In the Workshop, the weekly hours of work are 48, 8½ hours on week days and 5½ hours on Saturdays. Road coolies work for 8 hours a day from 8-30 a.m. to 12-30 p.m. and from 1-30 p.m. to 5-30 p.m. The normal working hours for the conservancy staff are 7 a.m. to 11 a.m. and 3 to 6 p.m. In the Water Works Department and the Pumping Station and Distribution department, the staff work in three shifts of 8 hours each. The shift hours are 7 a.m. to 3 p.m., 3 p.m. to 11 p.m. and 11 p.m. to 7 a.m. There is a change-over of shifts and workers in each shift get complete rest for 32 hours after every third or fourth day of work.

Wages and Earnings.

It is stated that wages of Municipal labour in Madras are fixed having regard to the wage rates prevailing in the concerns of other large employers of labour such as the Railways, etc. The Corporation has supplied the Committee with a schedule of wage rates and this has been given in Appendix V.

Since 1938 there have been no changes in the basic wage rates of the employees of the Municipality. All the permanent workers are given a time-scale of pay. This scale, as will be seen from the Appendix, varies from department to department. For instance, the scale of sewer coolies is Rs. 15—½—20 and that of conservancy coolies (men) Rs. 17½—½—20. In the Works department in which labour is employed on daily rates, these vary according to skill and ability from annas six per day to Rs. 2 per day. In the Water Works Department, the minimum monthly wage of scavangers is Rs. 12 and the maximum Rs. 15. Permanent and temporary labourers are given the same rates of pay except in the Health Department where temporary labour is paid at the following rates :—

	Monthly Rates	
	Temporary labour.	Permanent labour.
	Rs.	Rs.
Men	15	17—½—20
Women	11	13½—½—16
Boys	6	6—½—9

All the workers employed by the Municipality including casual labour are given a dearness allowance. The rates, however, vary according to the different categories of workers. Permanent workers get a fixed dearness allowance at a rate varying from Rs. 10 to Rs. 13. This scale, it is understood, is in accordance with the scales prescribed by the Provincial Government for its employees. Casual labourers are given a dearness allowance at the rate of annas four per day.

It is stated by the Corporation that the wages they pay are generally more liberal than those paid by contractors. The payment is made direct to the workers and no third party is employed for making payments. Wages are paid either monthly or fortnightly but the bulk of the workers are monthly paid. The payment of wages is made promptly and the period elapsing between the date on which wages fall due and are paid is 5 to 10 days only. Generally no over-time is worked but when it is, 8 hours per day is taken as the basis for its calculation. Fines are rarely imposed and are never in excess of the provisions of the Payment of Wages Act.

There is no separate fine fund except in the General Workshop where a Fine Fund has been opened and the amount spent for the benefit of the workers.

Since the Municipality pays the wages promptly and also makes no unauthorised deductions, it would appear that the Corporation would have no objection if the provisions of the Payment of Wages Act were applied to them.

Housing.

The Madras Corporation does not provide housing for any other category of their workers except those employed in the Conservancy Department and there too only 35 per cent. of the employees are housed in municipal quarters. The Municipality has in all built 354 quarters out of which 244 are one-room tenements and 110 two-room tenements. It has also in some cases supplied rest platforms on which the workers have erected their own huts and have also provided some municipal plots on which the workers have erected huts without foundations. These latter are apt to get flooded during the monsoon and the representatives of the Municipal Unions have been bitter in their complaints about the hardships of the workers staying in these quarters during heavy rains. Most of the tenements supplied by the Municipality are thatched and tiled with mud and brick walls. In some cases there are common latrines separately for men and women, while in others a latrine is provided in the quarter itself. Often times, however, there is no partition between the living room and the latrine ! In the case of most of the tenements no separate water taps are provided.

The rent charged for the Municipal quarters varies from one anna to Rs. 2 per month according to the type of accommodation supplied. In the huts built by the workers themselves on municipal plots, there is no provision whatever for sanitary arrangements and they present a most squalid picture of dirt and neglect. Nor are the workers living in tenements owned by private landlords in a very much better position. There the rent which has to be paid is sometimes as much as Rs. 4 p.m. for a single room.

In their reply to the Committee's questionnaire, the Municipal Corporation has stated that the housing of industrial workers should be the responsibility of the employers and of Government and that they have under consideration a scheme for housing their employees. On further enquiry, however, it is found that it may be beyond the capacity of the Municipal Corporation to house all their workers. It is understood that the Municipal Corporation is shortly launching an Improvement Trust for looking into the housing problem and that in the immediate future municipal workers may not expect much relief in regard to housing.

The housing conditions of municipal workers in Madras appear, on the whole, to be extremely unsatisfactory and can only be described as being squalid.

Welfare Work.

Except for the provision of dining sheds in the Municipal Workshops, no other special welfare activities for its employees have been undertaken by the Corporation. There is, however, a Corporation Labourers' Co-operative Society which grants loans to its members and recoveries are made through their pay in convenient monthly instalments. So far as medical aid and education are concerned, the employees of the Municipality are in the same position as any other citizen of Madras in that they can take advantage of the Municipal dispensaries, schools, etc. It is, however, understood that the extension of welfare work is actively under the consideration of the Municipal

Corporation and that an *ad hoc* committee has recently been appointed to examine the matter.

The Municipality has no Provident Fund but pays gratuity to all its employees on retirement. Permanent workers with approved service of ten years or more and temporary workers with approved service of 15 years qualify for the benefit, subject to certain conditions. Gratuity is payable at the rate of three months' pay for every five years' service up to 12 months' pay or Rs. 1,000 whichever is less.

The Corporation has not appointed any Labour or Welfare Officer but the appointment of such an Officer is under contemplation.

Trade Unions.

There are two Unions of Municipal workers in Madras. Their relations with the Corporation appear to be cordial and there have been very few strikes except one which took place last year in the Conservancy Department. The main grievances of the employees appear to be in regard to housing conditions, disabilities attached to temporary workers, the amount of dearness allowance which is lower than that paid in industrial units such as cotton mills and to Railway workers. The representatives of the workers also complained of the inadequacy of the provision made for safeguarding the future of the employees of the Municipality.

The Corporation has stated that the basic wage paid by them is similar to what is being paid by large employers of labour in Madras. In the Buckingham and Carnatic Mills the basic wage is annas 12 per day which seems to be slightly higher than the wage paid by the Madras Corporation to its sweepers, etc. In regard to dearness allowance, while in the largest cotton mill in Madras the scale of dearness allowance is about Rs. 18 per month and in the Railways Rs. 18 per month, the scale of dearness allowance in the Corporation varies from Rs. 10 to Rs. 13 per month and so far as temporary workers are concerned, they are paid at the rate of annas four per day only. There seem to be few unauthorised deductions from wages and wages are also paid promptly. The leave facilities appear to be on a generous scale. The problem of making at least a nucleus of the temporary staff permanent so that they may not be deprived of the benefits attached to permanency seems to deserve immediate consideration. Housing conditions of municipal workers even in the quarters provided by the Municipality can only be described as being deplorable and it is to be hoped that now that the War is over, the Municipality will undertake an immediate programme for the extension of housing facilities for its employees and effecting radical improvements in the housing so far supplied. It is gratifying that for a large proportion of the employees provision has been made for safe-guarding their future. Besides this, however, very little by way of welfare work is being attempted. It is to be hoped that the Corporation will undertake schemes for launching welfare work. The appointment by the Municipality of a Labour Officer or a Labour Welfare Adviser may also assist a great deal in securing a happier and a more contented labour force.

CHAPTER VIII.—SUMMARY AND CONCLUSIONS

The regional survey of the six selected municipalities given in the foregoing sections shows that they employ between them about 36,000 persons. In addition, the Calcutta Municipality is reported to be employing about 18,000 workers. The major municipalities in India are thus important employers of labour.

Recruitment is in most cases made direct although, in some municipalities like Nagpur, contract labour is employed in the Public Works Department. Wherever such labour is employed, there appears to be no control over the contractors by the municipal authorities in regard to conditions of work and wages. If the major municipalities like Bombay and Madras are able to recruit labour directly, there seems no reason why some of the municipalities should not be able to do so. It is well-known that labour when recruited through a contractor fails to get a fair deal.

The workers are generally classified into permanent and temporary. While, however, in some municipalities the proportion of permanent labour to the total is very considerable, in others a large percentage of the workers continue to remain on a temporary basis for a long period. With the exception of the Bombay Municipality, there are certain disabilities attached to temporary workers in regard to leave, Provident Fund, dearness allowance, etc., and there has been a clamour on the part of the representatives of the workers that after a minimum period of service there should be provision in the Service Rules for making the temporary workers permanent. While appreciating the difficulties of the authorities in making permanent those employed on building construction, road repairs, etc., there is no doubt that it is hard on an employee to be kept on a temporary basis for a number of years. It would appear that a way out of the difficulty would be gradually to absorb the temporary workers on a permanent basis or to estimate the minimum requirements of permanent workers on building constructions, etc., and to make such a nucleus permanent.

None of the municipalities surveyed has so far appointed a Labour Officer and although it was stated that workers in each department have access to the head of the department, the need for the appointment of Labour Officers who can listen to the grievances of the workers, appears to be imperative in most centres.

The hours of work vary from department to department, but are generally 8 to 10 per day. In the Water Works Department, Pumping Station and Distribution Department in Madras, there is a system of change-over of shifts and it is not understood why the other municipalities have not adopted such a system.

While in most departments of the municipalities the workers get a weekly holiday, those in the Conservancy Department get half a day off per week or are required to work, as in the Lahore Municipality, for all the days in the week. This has been a fruitful source of grievance although, it is obvious, that the nature of duties, particularly of the conservancy staff are such that unless the municipality employs a permanent surplus staff, it will be difficult to allow such staff a day off during the week.

The scale of leave with pay varies from municipality to municipality but compared to private industry, it seems that leave is being granted on a fairly liberal scale. The most liberal terms regarding leave are to be found in the Bombay Municipal Corporation where casual leave for 15 days, privilege leave for one month in the year and sick leave with pay upto 3 months in the year is granted to permanent workers. At the extreme end is the case of the Madras Municipality where leave is given only to permanent workers as follows :--

15 days' casual leave, and
15 days' privilege leave with pay per year.

In the Karachi Municipality, however, the grant of privilege leave is subject to the condition that no substitute is required for the work and consequently a large number of workers are unable to take advantage of this leave.

Working conditions in municipal workshops are generally satisfactory and the provisions of the Factories Act are strictly observed.

The work which has to be done by a large section of the municipal employees, particularly those in the conservancy and sewage departments is of such loathsome character that it is of the utmost importance that facilities should be given to them to ensure that the nature of their duties will have the least detrimental effect on their outlook and health. In this matter the Bombay Municipality seems to have taken the lead by providing boots, pattis, etc., to workers such as loaders, unloaders, halalkhores, etc., in the Health Department.

The Bombay Municipality has also given the lead by fixing a minimum wage for its employees. Incidentally, this minimum is the highest in the country so far as municipal labour is concerned. The table in Appendix VI shows the scales of pay for certain important occupations in the municipalities surveyed.

As will be seen from the tables in Appendices I to V, in Bombay and Karachi only, most of the occupations have graded scales of pay. In Lahore there is no scale of pay for any occupation.

The wage scales in Bombay and Karachi, for staff other than workshop staff, are the highest in the country. The basic wages of scavengers in Cawnpore, Nagpur, Lahore and Madras call for special attention in view particularly of the odious character of their work.

There is no standardization of wages in the different occupations in the various departments of the Municipalities and this is one of the grievances of municipal employees.

The scales of dearness allowance in all the centres are definitely lower than those obtaining in private industries although, in all cases, they are in accordance with the scales prescribed by the provincial governments. These vary from Rs. 22 in Bombay to Rs. 10 only in Madras. In Karachi, in addition to a dearness allowance of Rs. 18 per month, a compensatory allowance at the rate of Rs. 4 to Rs. 7-8-0 per month is being paid.

All the municipalities pay wages directly to the employees usually before the 10th of the month following the one for which they are due, although in one case, delays are found to occur and wages are not paid till about the 14th or 17th of the following month.

The incidence of fining is not heavy but, there are complaints of its being capricious. Some of the municipalities maintain no separate fine funds. The amount to the credit of the Bombay Fine Fund attracts attention.

Most of the municipalities appear to be observing the spirit of the Payment of Wages Act, in all the Departments. There is, however, considerable demand on the part of the workers' representatives that the provisions of the Act should be made applicable to municipal workers. Enquiries made seem to suggest that the municipal administrations will have no objection if this is done.

The following summary statement shows the proportion of workers housed by the municipalities.

TABLE XII.

Centre.	Proportion of workers housed.
1. Bombay	30%
2. Karachi	50%
3. Cawnpore	22·7%
4. Nagpur	1·7%
5. Lahore	*Nil*
6. Madras	35%

Except in the case of Bombay and Karachi where the housing provided by the municipality for the employees does not compare unfavourably with the housing provided by private industry, in the other centres, namely, in Nagpur and Madras, the conditions are pitiful.

The Bombay Municipal Corporation has started a few welfare centres for its employees, but these compare very unfavourably with similar welfare work done by the Government of Bombay. While, however, the Bombay and Karachi Municipalities are attempting some welfare work, in most other municipalities, nothing at all in the direction of welfare work for the employees is being attempted.

In view of the fact that a large section of Municipal workers, such as sweepers, scavengers, etc., is illiterate and comparatively backward, there seems an urgent necessity for the appointment of special Labour Officers to look after their interests.

There is one notable feature pertaining to all municipal administrations, which is that provision has been made for safeguarding the future of the workers in one way or the other. This takes the form either of a Provident Fund or a Gratuity or a Compassionate Allowance. Conditions governing membership of Provident Funds, the qualifying period for payment of gratuity, the scale of gratuity, etc., however, differ from municipality to municipality. There is no reason why this should be so. Perhaps, the most liberal provision in this regard has been made by the Bombay Municipality where all workers, permanent or temporary, are eligible to contribute to a compulsory Provident Fund. This type of provision for safeguarding the future of the workers is to be found in all the municipalities except in Madras, but the Provident Fund covers only a small proportion of the total labour force in municipalities other than Bombay and Karachi. In Madras, gratuity is paid at the rate of 3 months' pay for every five years' service upto 12 months' pay or Rs. 1,000 whichever is less, the qualifying period being 10 and 15 years for permanent and temporary workers respectively.

On the whole, municipal labour is well organized and in most of the centres the workers have a registered and recognized Trade Union. The relations between the administrations and the workers' unions can be regarded as being cordial.

Speaking generally, municipal workers in this country appear to be better off as compared to those engaged in a private industry in regard to hours of work, security of tenure, leave and provision for the future. The housing conditions of municipal workers are, however, most deplorable in some centres. Although the Maternity Benefit Act does not apply to municipal labour, some of the municipalities pay maternity benefit and grant leave. There is, however, no uniformity in regard to this. As municipalities are large employers of female labour, the question of the application of the Act to them is one deserving of consideration. Municipal workers are comparatively worse off than those employed in private industry in regard to the scale of dearness allowance, and therefore, in regard to total earnings, amenities such as medical aid, education, facilities for recreation, etc.

S. R. DESHPANDE,
Member,
Labour Investigation Committee.

SIMLA,
Dated 27th September 1945.

APPENDIX I.

Schedule showing scales of pay in important occupations in the Municipal Corporation, Bombay.

Name of occupation.	The Fire Brigade.	Hydraulic Engineering.	City Engineering.
	Rs.	Rs.	Rs.
1. Fitter	60—3—75	35 to 50	*Workshop* 70—1—75; 65—1—70. 55—1—65; 45—1—50. 40—1—45; 30—1—40. *Drainage.* 40—2—60. *Architectural.* 30—1—45. Daily rate 1—4—0 to 112-0
2. Carpenter	45 p.m.	50 p.m.	*Workshop.* 50 1—60; 40—1—45. daily rate 1-5-0 to 2-0-0.
3. Mukadam	..	29—½—32 Tempy. 1 to 1-4-0	29—½—32. Tempy. 1 to 1-8 0.
4. Mistri	..	1-4-0 45 to 60	45 to 60. daily 1-5-0 to 2-4-0.
5. Sluicemen	..	26—½—29	..
6. Tindal	40—2½—60	..	..
7. Fireman	30—½—40	..	..
8. Turner	..	..	*Mechanical Eng.* 70—2—80; 60—1—70. 45—1—55; 40—1—45; 25—1—30;
9. Motor Fitter	75—5—100	..	*Mech. Transport.* 75—2—90; 50—2—70; 40—1—50; 90—2—100; 65—1—75; 55—1—65; 45—1—50; 30—1—40.
10. Motor Mechanic	105—5—150	..	*Mech. Transport.* 80—4—100
11. Blacksmith	..	40 p.m.	*Workshop.* 71—1—80; 55—1—65; 40—1—45; daily 1 to 1-12-0.
12. Motor Drivers	60—2½—70—3—85	50—3—75	*Mechanical.* 50—3—85; 50—3—80 daily rate Rs. 2 to 2-12-0
13. Mason	..	..	*Mechanical* 50—1—60; 40—1—45; *Architectural.* 35—1—45.
14. Labourers (minimum wage)	..	Male Female Boy	25/- p.m. 21/-p.m. 0-7-0 to 0-10-0. 18/- p.m. 0-6-0 to 0-8-0
15. Scavengers	Men Rs. 25		
16. Sweepers	Women Rs. 21 and 23½		
17. Chowkidars	Rs. 25		

APPENDIX II.

Schedule showing scales of pay in important occupations in the Karachi Municipal Corporation.

1945.

Occupation.	Number.	Scale of pay in Rs.
Jamadars	1	30—1—40.
	5	22—1—25.
	1	30—3—45.
	4	21—1—30.
	1	21—1—30.
	1	35.
	13	
Havildars	9	26—1—30.
	4	25—1—30.
	3	50—2—60.
	16	
Sweepers	12	21—1—26.
	855	20—½—22.
	867	
Chowkidars	6	19—½—21.
	3	25—1—30.
	4	26—1—30.
	5	20.
	10	20—1—25.
	33	22—1—25.
	3	20—½—22½
	4	25—1—30.
	1	22—8—0 (fixed).
	2	30.
	1	25.
	72	
Attendants	2	30—2—40.
	1	25—1—28.
	10	22—1—30.
	3	25.
	16	
Drivers (Engine)	5	75—3—90.
	19	45—2½—60.
	5	60—3—75.
	1	50—3—75.
	3	75—5—100.
	33	
Ayahs	13	35.
	2	35—2—50.
	6	20—1—25.
	1	22—1—30.
	22	

APPENDIX II—*contd.*

Occupations.	Number.	Scale of Pay in Rs.
Hamals	2	20—1—25.
Herdsmen	2	20—½—22.
Ward Boy	2	25—1—30.
Peons	128	20—1—25.
	2	30—1—35.
	2	20—1—25.
	3	20—1—25.
	2	20—1—25.
	1	25—1—30.
	10	22—1—25.
	1	26—1—30.
	149	
Chainmen	6	25—1—30.
	5	25—1—30.
	11	
Dressers	3	20—1—25.
General Servants	25	25—1—30.
Dhobis	5	22—1—30.
	2	30.
	4	19—½—21.
	11	
Line Guards	1	30—1—35.
	6	22—1—25.
	7	
Koondimen (Drainage)	107	21—1—26.
Depotmen (Drainage)	1	25—1—28.
Khalasis	5	20—1—25.
	1	20—1—25.
	6	
Munshis	4	25—1—28.
	2	25—1—28.
	12	30—1—40.
	18	
Coolies	3	20—1—25.
	202	22—1—25.
	156	25—1—30.
	4	28—1—30.
	8	30.
	377	22—8—0
	1	22—1—30.
	751	
Motor Chauffeurs	7	45—2½—60.
Camel Sowars	3	35.
Naiks	2	45—2—55.
Fire-men	39	30—1—36.
Gatekeepers	1	90—0—0.
	12	45—2½—85.
	1	45—2½—90.
	2	26—1—30.
	1	35.
	19	45—2½—85.
	12	20—1—25.
	48	

APPENDIX II—*concld.*

Occupation.	Number.	Scale of Pay in Rs.
Gardeners	1	22—1—30.
Malis	11	22—8—0 (fixed).
	1	20—1—25.
	9	21—1—24.
	1	21—1—26.
	2	40—2—60.
	4	22—1—30.
	1	37—8—0
	12	30—1—35.
	1	42.
	1	25.
	1	25—1—30.
	44	
Spraymen	2	25—1—30.
Muccadams	14	22—1—25.
	20	22—1—25.
	2	22—1—25.
	8	38.
	12	30—1—35.
	56	
Cooks	3	3 ,.
	6	22—1—30.
	9	
Trip Checkers	3	22—1—25.
Lamp Lighters	1	22—8—0
Cleaners	9	22—1—30.
	4	30—2—40.
	2	30—2—40.
	3	30—1—35.
	18	
Watch-men	2	20—½—22½.
	10	25—1—30.
	5	21—1—24.
	1	30.
	5	22—8—0
	23	
Key-men	5	21—1—24.
	1	21—1—24.
	6	
Halalcores	123	20—½—22.
Cart Drivers	190	21—1—24.
	8	20—1—30.
	4	21—1—30.
	7	22—8—0
	209	
Total	2,728	

APPENDIX III.

Statement showing the grades of pay for different occupations in the Municipality, Cawnpore.

Workers' categories.	Scale of pay.
	Rs.
(a) *Park labour (Monthly).*	
(i) Head Malis	21—1—30.
(ii) Malis	10—½—15.
(iii) Jamadars	10—½—11½.
(iv) Sweepers	10—½—11½.
(b) *Road Gang (Daily).*	
	Rs. A. P.
(i) Malis	1 6 0 per day.
(ii) Bhistis	1 2 0 per day.
(iii) Beldar	0 14 0 per day.
(iv) Raiza	0 10 0 per day.
(v) Cart Mate	1 6 0 per day.
(c) *Mason gang.*	
(i) Mason	1 12 0 per day.
(ii) Beldar	1 2 0 per day.
(iii) Bhistis	1 2 0 per day.
(iv) Raiza or coolie	0 10 0 per day.
(d) *Lighting.*	Rs.
(i) Mistri (a) Head	30—1—40.
(b) Asst.	25—1—30.
(ii) Driver	30—1—40.
(iii) Lineman	20—1—30.
(iv) Beldars	15—1—20.
(v) Lamp lighters (Electric)	15—1—20.
(vi) Kerosene oil lamp lighters	4—8—0 to 7—0—0 (fixed).
(e) *Workshop.*	
(i) Instructor	45—3—60.
(ii) Assistant Carpenter	30—35.
(iii) Assistant Blacksmith	30—35.
(iv) Fitters	20—0—0
(v) Clearners	15—½—18.
(vi) Firemen	20—1—25.
(f) *Conservancy.*	
(i) Jamadars	19—1—30.
(ii) Assistant Jamadars	12—1—18.
(iii) Road sweepers and Scavengers (Males)	10—½—12½+25%
(iv) Road sweepers (females)	9—½—11½+25%
(v) Jallad	8 (fixed).
(vi) Bhisti	8 (fixed).
(vii) Canvas line-man	8 (fixed).
(viii) Turncocks	8 (fixed).
(ix) Motor Drivers	25—1—40+Rs. 10.
Water works (Workshop).	
Mistry	50—1—60.
Turners	30—1—40.
Fitters	30—1—40.
Blacksmith	25—2—40.
Carpenter	30—1—35.
Hammerman	14—1—18.
Coolie	14—1—18.
Meter Mistry	35—3—50.
Asstt. Mistry	30—2—40.
Meter cleaner	14—1—18.
Mason	20—1—25.
Mason Coolies	14—1—18.
Chowkidars	12—1—15.

APPENDIX IV.

Wage rates of workers in the Municipal Corporation, Lahore.

Occupation.	Total employed.	Rate of wages.			
		Rs.	a.	p.	
Jamadar (Peons)	1	20	0	0	Per Mensem.
Peons	203	20	0	0	"
		18	0	0	"
		17	0	0	"
		15	0	0	"
		6	0	0	"
Book Binder	1	20	0	0	"
Lamp lighters	47	15	0	0	"
Engine-Room Fitter	1	105	0	0	"
Electrician	2	68	0	0	"
		62	0	0	"
Fitter Electrician	2	32	0	0	"
Fire Engine Drivers	3	60	0	0	"
		52	0	0	"
Firemen	33	31	0	0	"
		35	0	0	"
		33	0	0	"
		32	0	0	"
		30	0	0	"
		28	0	0	"
		26	0	0	"
Foremen	2	105	0	0	"
		78	0	0	"
Meter Mechanic	1	64	0	0	"
Assistant Mechanic	3	21	0	0	"
Mains Foreman	1	125	0	0	"
Turner	1	64	0	0	"
Turn cock	2	40	0	0	"
		15	0	0	"
Assistant Turn cock	1	30	0	0	"
Telephone Attendant	2	15	0	0	"
Reserve Driver	1	62	0	0	"
Carpenters	2	66	0	0	"
		60	0	0	"
Masons	3	40	0	0	"
Boiler cleaners	5	31	0	0	"
Coal Men	9	20	0	0	"
Gatekeeper	1	20	0	0	"
Fitters	18	62	0	0	"
		42	0	0	"
		40	0	0	"
		36	0	0	"
		34	0	0	"
		33	0	0	"
		32	0	0	"
		31	0	0	"
		30	0	0	"
Maid-servant	65	11	0	0	"
		7	0	0	"
		5	0	0	"
		3	0	0	"
		2	0	0	"
Disinfecters	3	15	0	0	"
Ward servants	12	20	0	0	"
		19	0	0	"
		18	0	0	"
		17	0	0	"
		15	0	0	"

APPENDIX IV—*contd.*

Occupation.	Total employed.	Rate of wages.	
		Rs. a. p.	
Cooks	2	25 0 0	Per Mensem.
Assistant cook	1	20 0 0	,,
Kahar	3	12 0 0	,,
Nurse dais	25	32 0 0	,,
		40 0 0	,,
		20 0 0	,,
Anti-epidemic Jamadars	30	24 0 0	,,
		23 0 0	,,
		22 0 0	,,
		21 0 0	,,
Sanitary Jamadars	76	31 0 0	,,
		29 0 0	,,
		26 0 0	,,
		21 0 0	,,
Conservancy Jamadars	3	26 0 0	,,
Jamadars leave Reserve	6	20 0 0	,,
Laboratory Attendant	1	15 0 0	,,
Cartmen	4	18 0 0	,,
		15 0 0	,,
Cartmen Leave Reserve	12	18 0 0	,,
Drivers	79	30 0 0	,,
		28 0 0	,,
		27 0 0	,,
		48 0 0	,,
		44 0 0	,,
		45 0 0	,,
		42 0 0	,,
		37 0 0	,,
Drivers		32 0 0	,,
		41 0 0	,,
		30 0 0	,,
		26 0 0	,,
		25 0 0	,,
		23 0 0	,,
		22 0 0	,,
		27 0 0	,,
		20 0 0	,,
		16 0 0	,,
		18 0 0	,,
Assistant Drivers	3	20 0 0	,,
		18 0 0	,,
Lorry Drivers (Public Health)	22	47 0 0	,,
		44 0 0	,,
		37 0 0	,,
		36 0 0	,,
		36 0 0	,,
Watering Darogha (Municipal works)	1	36 0 0	,,
Mali (Gardener)	19	25 0 0	,,
		23 0 0	,,
		22 0 0	,,
		21 0 0	,,
		20 0 0	,,
		15 0 0	,,
		13 0 0	,,
		4 0 0	,,

APPENDIX IV—*concld.*

Occupation.	Total employed.	Rate of wages.			
		Rs.	a.	p.	
Jamadars (Misc.)	14	30	0	0	Per Mensem.
		25	0	0	,,
		20	0	0	,,
		18	0	0	,,
Ghowkidars	33	17	0	0	,,
		16	0	0	,,
		15	0	0	,,
		12	0	0	,,
		10	0	0	,,
Coolies	355	20	0	0	,,
		18	0	0	,,
		17	0	0	,,
		16	0	0	,,
		15	0	0	,,
		14	0	0	,,
		12	0	0	,,
		10	8	0	,,
		5	8	0	,,
		5	0	0	,,
Bhishties	835	15	0	0	,,
		13	0	0	,,
		12	0	0	,,
		10	0	0	,,
		8	0	0	,,
		6	0	0	,,
		5	0	0	,,
		4	0	0	,,
		3	0	0	,,
		2	8	0	,,
		2	0	0	,,
		1	8	0	,,
		1	0	0	,,
Municipal Rubbish Cart Drivers	128	22	0	0	,,
Iron Cart Drivers	62	17	0	0	,,
Lorry cleaners	14	15	0	0	,,
Jemadar—Sweepers	1	22	0	0	,,
Sweepers	1,810	15	0	0	,,
		14	0	0	,,
		13	0	0	,,
		12	0	0	,,
		11	8	0	,,
		10	0	0	,,
		8	0	0	,,
		7	0	0	,,
		6	0	0	,,
		5	0	0	,,
		4	0	0	,,
		3	8	0	,,
		3	0	0	,,
		2	8	0	,,
		2	0	0	,,
		1	8	0	,,
		1	0	0	,,

APPENDIX V.

Statement showing the wage rates in different departments in the Municipal Corporation, Madras.

WATER WORKS DEPARTMENT

Distribution and Maintenance.

Category of labour.	No. employed.	Wages or salary.
		Rs.
House service maistries	24	25—1—35
Water detection maistries	10	20—1—25
Fitters	20	25—½—30
Assistant Fitters	20	20—½—25
Turn-cocks	20	20—½—25
Brick Layers	20	20—½—25
Lascars	141	15—1—20
Lascars	40	15
Brick-layer coolies	20	15
Tube-well Mechanics	3	30—1—40
Mechanical Fitters	1	30—2—60
Watchmen	3	15—1—20
Gardeners	3	15
Bridge-layer coolies	20	15
Milpauk Pumping Station		
Firemen	8	20—1—25
Cleaners	9	15—1—20
Fitter Cooly	1	15—1—20
Blacksmith	1	35
Tappal Lascar	1	15—1—20
Store Cooly	1	Do.
Gardener (female)	1	10
Scavenger	1	15
		Rs. a. p. Rs. a. p.
Fitters	9	0 12 0 to 2 8 0
Fitter coolies	13	0 8 0 to 0 14 0
Coal coolies	15	0 7 0 to 0 14 0
Brick layer	1	1 8 0
Turner	1	0 12 0 to 2 8 0
Boiler coolies.	3	0 14 0
Gate Watchman	3	15—1—2
Filter Beds.		
Maistry	1	25—1—35
Brick layers	2	31
Fitter	1	30—1—40
Assistant Fitter	1	15—1—20
Turn cock	2	20—1—25
Lascar	12	15—1—20
Gardeners	2	15
Gardeners (females)	4	10
Shaft coolies	9	15—1—20
Men coolies	4	16
Porters of main gate.	2	15—1—20
Night petrol men	1	20—½—25
Chlorination Staff.		
		Rs. a. p. Rs. a. p.
Filter coolies	9	0 8 0 to 0 14 0
Filters	2	0 8 0 to 0 14 0

APPENDIX V—*contd.*

Category of labour.	No. employed.	Wages or salary.
Red Hills Staff.		
		Rs.
Syrengs	2	15
Watchmen	1	15
Lascars	16	15—1—20
Sweeper (female)	1	10
Water Works Stores.		Rs. a. p. Rs. a. p.
Fitters	4	0 12 0 to 2 8 0
Cooly Maistry	1	0 12 0 to 1 8 0
Coolies	23	0 8 0 to 0 14 0
	470	

SPECIAL WORKS DEPARTMENT.

Permanent labour.

Labour engaged.	No. employed	Scale of wages.
Sewer Cleaning		Rs.
Jointers	20	15—½—20
Maistries	19	15—½—20.
Coolies	249	15—½—17½.
Coolies	30	15
Tappal Lascars	8	15—1—20
Syphon Coolies		
Coolies	234	17—½—20
Main Drain Cleaning		
Coolies	100	15—½—17½.
House connection		
Maistries	3	25—1—35.
Tappal Peons	8	15—1—20.
Watchmen	6	15.
Casual or Temporary Labourers.		
Construction Branch.		Rs. a. p. Rs. a. p.
Time-keepers	59	0 14 0 to 1 12 0
Bricklayer maistries	11	1 12 0
Brick layers	58	0 12 0 to 1 8 0
Blacksmiths	1	0 12 0 to 1 10 0
Carpenters	4	0 10 0 to 1 12 0
Driver	1	0 9 0 to 2 4 0
Jointers	8	0 7 0 to 1 4 0
Men coolies	168	0 7 0 to 0 14 0
Women coolies	77	0 4 0 to 0 8 0
Boy coolies	12	0 3 0 to 0 7 0
Watchmen	39	0 3 0 to 0 8 0
Drainage Maintenance Labour		
Carting Maistry	12	1 4 0 to 2 0 0
Brick layers	18	0 12 0 to 1 8 0
Jointers	5	0 6 0 to 1 8 0
Carpenters	1	1 0 0 to 1 8 0
Fitters	3	0 9 0 to 1 8 0
Head coolies	2	0 12 0 to 1 8 0
Men coolies	71	0 7 0 to 0 14 0
Women coolies	10	0 6 0 to 0 8 0
Boy coolies	3	0 6 0
Scavenger	1	0 11 0
Silt Cart Maistry	4	0 12 0 to 1 8 0
Silt Cart coolies	25	0 8 0 to 0 12 0

APPENDIX V—*contd.*

Labour engaged.	No. employed	Scale of wages.
ELECTRICAL DEPARTMENT.		
		Rs.
Jointer Mates	4	20—1—25
Tappal Peons	6	15—1—20
Lascars	4	Do.
Overhead line cooly	9	Do.
Do. maistries	3	25
Coolies	32	15—1—20
Painters	2	20—1—25
Switchers	101	15
Watchmen	20	15
		Rs. A. P. to Rs. A. P.
Carpenter	1	0 7 0 to 2 0 0
Blacksmith	3	0 8 0 to 1 12 0
Turner	2	0 7 0 to 2 8 0
Fitter	1	0 7 0 to 2 8 0
Engraver	2	0 8 0 to 2 0 0
Hammermen	2	0 7 0 to 1 4 0
Moulder	2	0 8 0 to 2 0 0
Clock Mechanics	2	2 8 0
Driller	1	0 8 0 to 1 4 0
Time keepers	2	0 8 0 to 2 0 0
Winder boy	1	0 2 0 to 0 4 0
WORK DEPARTMENT		
		Rs.
Head Watchmen	2	15—1—20
Watchmen	13	15—1—20
Watchmen	46	15
Water Supplier	1	15
Scavenger	1	17½—½—20
Tappal Lascar	18	15—1—20
Sweeper	13	17½—½—20
Sweeper (female)	1	10
Lascars	23	15—1—20
Tappal Peons	2	15—1—20
Maistries	38	21—1—35
Maistry	1	25
Road Coolies	550	16
Road Coolies	500	16
Fireman	1	20
Coolies	8	15
Coolies	89	15
Maistry	1	25—1—30
Maistry	1	20—1—30
Maistries	2	20—1—25
Gardener	1	15—½—17
Gardener	3	15
Gardener	1	15
		Rs. A. P.
Garden coolies	5	0 12 0 per day
,, ,,	16	0 10 0 ,,
,, ,,	2	0 10 0 per day
,, ,,	5	15 0 0 p.m.
,, ,,	10	15 0 0 p.m.
,, ,,	37	15 0 0 p.m.
,, ,,	25	10 0 0 p.m.
Coolies—Road metal	22	0 14 0 per day
,, ,,	11	0 7 0 per day
,, ,,	5	10 0 0 p.m.
,, ,,	4	10 0 0 p.m.
,, ,,	1	10 0 0 p.m.
,, ,,	1	10 0 0 p.m.

APPENDIX V—*contd.*

Labour engaged	No. employed	Scale of wages.
Pallavaram quarry coolies		
Chief breaker	..	Rs. A. P. Rs. A. P. 0 10 0 to 0 11 0 per day.
Breakers	..	0 9 0 per day.
Men cooly	..	0 8 0 to 0 14 0 per day
Female cooly	..	0 8 0 per day.
Blacksmiths	..	1 0 0 to 1 4 0 per day
Hammermen	..	0 10 0 to 0 12 0 per day
EDUCATION DEPARTMENT		
Lascars	2 males	15
Conductors	16 males	15
Conductresses	160 females	10 2 0
Sweepers	155 females	Rs. 3 to Rs. 4/-
Scavengers	159 females	,, 4/-
Gardener	1 male	,, 15/-
Watchman	1 male	,, 15/-
MECHANICAL ENGINEERING SECTION		
Pumping Stations		Rs.
Firemen	7	20—1—25
Drivers	77	15—1—20
Pumpsmen	12	15—1—20
Cleaners	60	12—1—20
Coolies	87	16—8—0
Watchmen	3	15—0—0
Scavenger	1	4—0—0
Fitters	15	0—10—0 to 2—8—0
Rollers		
Firemen	19	20—1—25
Cleaners	42	15—1—20
Watchmen	9	15—0—0
Emulsion plant		
Firemen	1	20—0—0
Coolies	8	15—0—0
A. R. P. Break down gangs		
Maistries	2	50
Jointers	8	05
Coolies	40	35
Watchmen	4	15
Telephone Attender	4	20
Messengers	4	20
Lorry Station		Rs.
Drivers	46	40—2—60
,,	1	35—2—50
,,	1	35—2—45
,,	9	30—2—40
,,	9	30—1—40
Cleaners	40	15
Firemen	1	25
,,	1	23—8—0
,,	1	20
Fitters	1	3 per day
,,	3	2 per day
,,	2	1 13 0 per day
,,	1	1 14 0 per day
,,	1	1 10 0 per day

APPENDIX V—*contd.*

Labour engaged	No. employed	Scale of wages					
		Rs.	A.	P.		Rs.	A. P.
General Workshop							
Fitter	30	0	12	0	to	2	8 0
Fitter cooly	10	0	7	0	to	0	14 0
Turner	22	0	14	0	to	2	8 0
Turner cooly	12	0	7	0	to	0	14 0
Tinker	3	0	8	0	to	1	8 0
Tinker cooly	2	0	7	0	to	0	14 0
Motor Fitter	5	0	12	0	to	3	0 0
Motor Fitter cooly	3	0	7	0	to	0	14 0
Blacksmith	16	0	12	0	to	1	12 0
Moulder	29	0	12	0	to	2	0 0
Moulder cooly	7	0	7	0	to	0	14 0
Carpenter	16	0	12	0	to	2	0 0
Carpenter cooly	4	0	7	0	to	0	14 0
Riveters	2	0	10	0	to	1	12 0
Rivetter cooly	1	0	7	0	to	0	14 0
Cooper	1	0	8	0	to	1	0 0
Painter	2	0	10	0	to	1	8 0
Painter cooly	1	0	7	0	to	0	14 0
Letter Painter	1	1	0	0	to	2	0 0
Hammermen	5	0	8	0	to	1	4 0
Furnacemen	1	0	10	0	to	1	4 0
Driller	5	0	8	0	to	1	4 0
Maistries	3	2	0	0	to	2	12 0
Coolies	..	0	7	0	to	0	14 0

Conservancy Staff.

The different scales of wages paid to the several categories of labourers are as follows :—

	Rs.		Rs.
Steam disinfector driver	30—0—0	Cart Driver	17½—½—20
Steam disinfector cooly	15—0—0	Gardeners	15.
Lascar for wiremen	15—1—20.	Dhoby	15.
Dhobies	17—½—20.	Barber	15.
Cooks	15—1—20.	Attendant	20—1—25.
Ambulance Car cleaners	15—0—0	Guides	20—1—25.
Female Sweepers	14—½—16.	Night petrol	25.
Male Sweepers	17½—½—20.	Scavenger	13½—½—16.
Garden maistry	13½—½—16.	Cook	10.
Male Thotties	17½—½—20.	Carpenter	37½.
Female Thotties	14—½—16.	Mason	30.
Gardeners	15—0—0	Fitter	22½.
Female coolies	10—0—0	Maistry	20.
Watchmen	15—0—0	Coolies	15.
Sweepers	6—0—0 and 3.	Guide	15.
Male Thotties	17	Watchman	17—1—20
Driver, Leprosy car	30—2—40.	Female Scavenger	13½—½—16
Watchman	15	Sweeper	10
Watchman, Lethal Chamber	15	Sweeper	17—1—25
Sweeper	5	Scavenger	17½
Maistries	25—1—35.	Coolies	17½—½—20
Coolies	24.	Maistries	13½—½—16
Maistries	25.	Sweepers	15—1—20
Coolies	15—1—20.	Lascar	17½
Cooks	15—1—20.	Coolies	15
Lascar	15—1—20.	Coolies	25
Thotties	17½—½—20.	Maistries	20
Male Scavenger	Do.	Watchman	20
Sweeper	Do.	Coolies	15

APPENDIX V—*concld.*

The wage rates for the labour staff employed in the Conservancy section are as follows :—

	Rs.		Rs.
Men	17½—½—20	Care takers	15
Women	13½—½—16	Lorry coolies	24
Boys	6—½—9	Drivers	17½—½—20

APPENDIX VI.

Table showing the scales of pay in important occupations in the principal Municipalities.

Sl. No.	Occupation.	Bombay.	Karachi.	Nagpur.	Cawnpore.	Lahore.	Madras.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Mukadams	29—½—32	22—1—25 to 38	..	10—½—11½	20 per mensem	..
2	Firemen	30—½—40	30—1—36	..	20—1—25	26 to 35 p.m.	20—1—25
3	Chowkidars	25	19—½—21 to 30	9 and 12—1/8—15	12—1—15	10 to 17 p.m.	..
4	Sweepers and Scavengers	25 Men 21 and 23½ for women.	20—½—22 21—1—26	15 to 15—8—0 males. 11 to 11/8 females	10—½—12½+25% males. 9—½—11½+25% females	10 to 15 p.m.	12 to 15 males. 10 females.
5	Labourers	25 males 21 females 18 children	20—1—25 28—1—30	12 to 15 p.m.	14—1—18	5 to 20 p.m.	15—½—17½ 15—1—20 17½—½—20
6	Turners	25—1—30 to 70—2—80	..	30—2—60	30—1—40	64 p.m.	0—12—0 per day
7	Blacksmiths	40—1—45 to 71—1—80	..	20	25—2—40		35 p.m.
8	Carpenters	45 to 50—1—60	..	25 to 28	30—1—35	60 to 66 p.m.	0—7-0 to Rs.2 per day
9	Masons	35—1—45 40—1—45 50—1—60	..	..	20—1—25 and 1/12/- per day.	40 p.m.	0—12—0 to 1—8—0 and 20—½—25
10	Fitters	30—1—40 to 70—1—75	..	30—2—60 20 26	20 p.m. 30—1—40	30 to 62 p.m.	25—½—30 and 0—12—0 to 2—8—0 per day

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LABOUR INVESTIGATION COMMITTEE DL-115
700
GOVERNMENT OF INDIA

REPORT
ON
AN ENQUIRY INTO CONDITIONS OF LABOUR IN THE PAPER MILL INDUSTRY IN INDIA

BY
S. R. DESHPANDE

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the Labour Investigation Committee was appointed by the Government of India by Resolution No. L 4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each. The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making Cigar and Cigarette. (29) Mica Spiliting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different Provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently, the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of the *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed and (b) supplementary and special questionnaires in respect of certain industries such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and some of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst employers' and workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned, it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North West Frontier Province where none of the industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labour conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) the Committee, as a whole, to study each industry, (ii) the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India perspective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

D. V. REGE, *Chairman.*

S. R. DESHPANDE
AHMAD MUKHTAR } *Members.*
B. P. ADARKAR

TEJA SINGH SAHNI,
Secretary.

ACKNOWLEDGMENTS.

Replies to the Committee's Questionnaire were received only from few of the paper mills in India. Most of the data incorporated in this Report had, therefore, to be collected on the spot by the Investigating and Supervisory staff of the Committee. My thanks are due to them for the painstaking manner in which they carried out their duties. Acknowledgments are also due to Mr. K. D. Chatterjee, Superintendent of my Office and to Mr. S. R. Sundaram, one of the Supervisors of the Committee, for the assistance rendered in the collection of some of the background material used in this Report. Mr. Sundaram has also assisted me considerably in the final preparation of the manuscript.

PART I.

CHAPTER I.—INTRODUCTION.

Historical and Economic Background.—H. A. Maddox in "Paper, its History, Sources and Manufacture" has defined paper as "a fabric composed mainly of minute vegetable fibres which have been deposited on to a sievelike structure from their suspension in water and co-mingled and felted together in such a way as to form a homogeneous sheet or web."* The paper industry in India has been the subject matter of three separate Tariff Board enquiries and the reports on these contain some valuable information on the early history and growth of this industry. It is seen that the manufacture of paper by hand has existed in India for centuries and was at one time well established but is now almost extinct.† The industry as a factory industry is, however, of comparatively recent origin. According to the Tariff Board "the production of machine-made paper in India apparently dates from the establishment in 1870 of the Bally Mills on the Hooghly and it is in this neighbourhood that the principal seat of the industry is still to be found." In the course of two decades thereafter, seven paper mill sprang up as shown below :—

Year	*Name of the concern established.*
1870	Bally Mill, Hooghly, Bengal.
1879	The Upper India Couper Mill, Lucknow.
1882	The Tittaghur Mill, Bengal.
1887	The Deccan Paper Mill, Poona.
1891	The Raniganj Mill.
1891	Two Mills In Bombay.
1891	Paper Mill in Punalur, Travancore State.

For nearly 30 years after 1892, no new paper mill was established. From 1918 to 1939 however, paper mills were started at Naihati, Rajahmundry, at Saharanpur in the U.P. and at Jagadhri in the Punjab.

According to the available information it is seen that in 1924 the productive capacity of Indian Paper Mills was 27,000 tons, as against a total home demand for about 99,000 tons. Thus, more than two-thirds of the home demand was being met by imports. In order to safeguard its interests, the Industry applied to Government for protection and as a result of the recommendations of three successive Tariff Boards in 1924, 1931 and 1938, it is now one of the protected industries of the country.

Location of the Industry.—The following table shows the location of the industry and the number employed in 1921, 1939‡ and 1943-44.§

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*Quoted by Tariff Board in their Report, 1925, page 4.

† Tariff Board Report, 1925, page 3.

‡"The Location of Industry in India"—page 53 published by the Office of the Economic Adviser to the Government of India.

§Statistics Collected by the Office.

TABLE I.

Province or State and districts.	1921		1939		1943-44	
	No. of factories.	No. of workers.	No. of factories.	No. of workers.	No. of factories.	No. of workers.
U.P.—						
Lucknow	1	688	1	702		
Saharanpur ..	..	..	2	696		
Total ..	1	688	3	1,398	4	2,445
Bngal—						
24-Parganas	2	3,265	3	4,331		
Burdwan	1	1,270	1	1,937		
Total ..	3	4,535	4	6,268	4	8,176
Bombay—						
Poona	1	358	1	562		
Bombay Island	2	283	2	275		
Ahmedabad	..	..	1	117		
Total ..	3	641	4	954	8	2,014
Punjab—						
Ambala	..	..	1	995	1	995
Bihar—						
Shahabad	..	..	1	1,377	1	938
Orissa—						
Sambalpur	..	..	1	561	1	1,237
Madras	..	..	..	..	1	701
Madras States—						
Travancore	1	88	1	259	1	300
Mysore—						
Shimoga	..	..	1	598	1	800
Grand Total for India (excluding Burma)	8	5,952	16	12,410	22	18,606

It will be seen that although Bombay has the largest number of units, from the point of view of production and number employed, Bengal continues to be the most important centre of the industry. In the U.P., there are four factories employing nearly 2,500 persons. Only two of the factories are in Indian States, namely, Mysore and Travancore. The total number of units in the industry in 1943-44 was 22 employing about 19,000 workers, and it is estimated that at present production is well over 100,000 tons per annum.

The raw materials used for the manufacture of Paper are, Sabai grass, bamboo pulp and cotton rags. The Tariff Board of 1924 stressed the importance of the development of the bamboo pulp industry and recommended protection chiefly for printing and writing paper in the production of which bamboo pulp was required.

Looking at the present location of the industry from the point of view of raw materials, supply of power and markets, etc. it is seen that while some of the factories such as those in Bengal are favourably situated in regard to power, they have to get their raw materials from considerable distances the reverse being the case in respect of the factories situated in the South and it has been suggested that " as regards future developments, it seems that the

location of this industry is likely to be governed more by raw materials and power than by markets."

Although during the period 1933-39 the production of paper mills had steadily risen from 43,000 tons to 70,000 tons just before the outbreak of the war the industry was in a very depressed condition. Soon, however, there was a spurt in the production. By December 1939 the index number of paper shares reached a record level of 325 (base 1928-29=100*) and in spite of the war-time controls and regulations relating to this industry it does not seem to have been affected adversely from the financial point of view because in 1942 the profits of the industry amounted to a crore of rupees and those of eight companies for which comparable figures are available rose from about 30 lakhs in 1940 to 86 lakhs in 1942.†

Scope of the Enquiry.—For purposes of the present enquiry, 15 paper mills in the country employing 15,425 persons or about 85.5 per cent of the total employed in the industry have been covered. In view of the importance of Bengal as a paper manufacturing centre all the four units in Bengal were surveyed. In order to get a comparative picture between conditions in British India and in Indian States, the largest among the paper mills in one of the States namely, at Bhadrawati in Mysore was covered for purposes of the present enquiry. The following table contains particulars regarding the units surveyed.

TABLE II.

Place.	No. of mills surveyed.	No. of persons employed at the time of survey.
1. Bengal	4 mills	7,084
2. Bihar	1 mill	2,000
3. Bombay	5 mills	1,838
4. Punjab	1 mill	1,124
5. Orissa	1 mill	1,276
6. United Provinces	1 mill	700
7. Madras—Rajahmundry	1 mill	603
8. Mysore State	1 mill	800
	15	15,425

Processes.—The processes in paper mills differ according to the raw material used. As pointed out already, the two main raw materials are Sabai grass and bamboo. The common processes in the case of both these consist of preparation of pulp, beating, paper-making and calandering. In Appendix I will be found detailed descriptive notes on the processes involved in the manufacture of paper from (a) Sabai grass and rags and (b) bamboo.

*Review of Trade 1939-40, pages 72-73.

†Review of Trade 1941-42, page 75.

PART II.—REGIONAL SURVEY.

CHAPTER II.—BENGAL.

During the latter half of the 18th century hand-made paper was in evidence on a considerable scale in Bengal, particularly in the districts of Hooghly, Howrah and Murshidabad. The trade was in the hands of persons known as *Kagajis* (that is, people making paper) and there were villages inhabited entirely by persons following this trade. The industry was carried on chiefly as a cottage industry. The first paper mill was established in Bengal in 1870 in Bally in the district of Howrah. At present there are in Bengal four units of the industry three of which are located in the Calcutta industrial area and one at Raniganj. These are some of the largest single units in the industry in the country and at one time accounted for about 80 per cent. of the total production. All these four units have been surveyed for purposes of the present enquiry.

The paper mills in Bengal use as raw materials bamboo and sabai grass. Sabai grass is obtained from the C.P. and Bihar while bamboo is obtained from the forests in Chittagong and from other places in Bengal and Assam.

Employment.

In January 1944, the four units between them employed slightly over 7,000 persons. As compared to August 1939 the increase in employment has been of the order of about 15 per cent. Of the total number of persons employed it was reported that women numbered only 343. No child labour is employed in any of the mills. Women are generally not employed in the Manufacturing Departments but are engaged on Sabai grass picking and rag selection work.

In addition to the labour directly employed, three of the units employ about 900 workers through contractors. Contractors' men usually load and unload wagons and do other menial work. In one mill the work of sorting of rags and dusting of sabai grass is also entrusted to contractors' labour. All labour employed through contractors is paid by the contractors and the mill authorities exercise little or no supervision over payments made to such labour. Nor is there any control over their hours of work, etc. While, however, there is no regulation of hours of work, payment of wages, etc., it is understood that at the present time some of the contactors' men actually receive higher wages than the labour directly employed by the factories.

Only two of the units furnished information as regards the length of service of their operatives. This information related to about 4,105 workers. The following table gives details of the length of service.

TABLE III.

Period (in years).	Mill A.	Mill B.	Total.	%age.
0—1	394	459	853	20·9
1—5	1,243	545	1,788	43·6
5—10	399	159	558	13·5
Over 10 years	699	207	906	22·0
	2,725	1,370	4,105	100

These figures have to be interpreted in the light of certain special local circumstances. The units to which they relate are long established and the proportion, therefore, of those with less than five years' service would seem high. It is to be remembered, however, that owing to enemy action in Bengal in the year 1942 many permanent workers left the mills as a result of

panic. Moreover, due to the conditions created by the war both the units have recently expanded and there has been a considerable addition to their complements. Considering these circumstances and the fact that usually the turnover of labour in Indian factories is large, the above figures tend to show that there is reasonable continuity of tenure so far as paper mills in Bengal are concerned.

A very small proportion of the workers in paper mills are regarded as temporary, nearly 98 per cent. being permanent. Temporary workers are almost wholly unskilled and are employed as substitutes for permanent workers. Temporary workers are, however, required to record their attendance at the mill gates in order to qualify for the benefit of cheap rations. This is regarded as a hardship by substitute labour because after having gone to the mill there is no certainty that they will get a job for the day. At the same time, this system eliminates the danger of corruption on the part of mistries and sirdars. At present, however, owing to very large demand for unskilled labour the badlis do not find much difficulty in finding work throughout the month. All the mills have, on the basis of their absenteeism figures, decided upon a *badli* complement which varies from 3 to 30 per cent.

Badli labour is not entitled to privilege or earned leave like the permanent labour, nor can they contribute to the provident fund. The period of service as *badli* is not counted as service in the event of the man being made permanent later.

Permanent workers enjoy the benefit of casual and earned leave and are entitled to pension or provident fund benefit. According to the conditions of service, permanent workers have to give a week's notice before leaving.

In all the mills there is a system of apprenticeship for the supervisory staff as well as far the operatives. The period of apprenticeship for the latter, particularly in the skilled and semi-skilled jobs such as those of fitters, turners, blacksmiths, etc. varies from three months to five years. During the period of apprenticeship an allowance varying from as 6 to Re 1|- per day is paid. The apprentices after completion of their training are absorbed on the permanent cadre on the rates of wages prevailing in the concern.

Working Conditions, Hours of Work and Shifts.

The working conditions inside all the factories appear to be satisfactory. The departments are well ventilated and lighted. Some of the departmental rooms have also been fitted up with exhaust fans. All these factories have properly cemented flooring and there is adequate floor-space for the workers to move about in the departments.

Being continuous process factories all the units have three shifts for process workers. In one, the shifts are of seven hours each with a spread-over of eight hours and an hour's interval. Work goes on from 6 a.m. to 6 a.m. In another the Boiler-men work in four shifts of 6 hours each. In a third unit the fourth shift works for 9 hours. The spread over in the case of the latter is of 12 hours including the rest interval. In the fourth unit the general duty shift is of ten hours including the rest interval. It is understood that those on process work get a holiday every fortnight. Workers on the general duty shift, however, get a regular weekly holiday on Sunday, and also certain holidays on festival days. In all the units there is a system of a weekly change-over of shifts.

None of the units has provided a rest shelter for the use of the workers during rest intervals. In two of the units canteens are used by the workers as rest shelters during recess periods.

Wages and Earnings.

A wage census relating to the month of January 1944 was conducted in all the four units and all the workers in these units were covered for purposes of the census. The following table gives the average daily wages and earnings of employees in selected occupations. The figures given in the table relate to 5,000 operatives and cover nearly 74.3 per cent. of the total.

TABLE IV.

Table showing wages and earnings in selected occupations in January 1944.

Industry—Paper.
Centre—Bengal.
Weighted Averages—

Name of Occupation.	Shift.	Sex.	Piece or Time	No. of hours of work per shift.	Number of Workers	Number of Samples taken.	Average daily Basic Wages earned.	Average daily gross earnings incl. overtime, allowances and bonuses.	Average daily net earnings incl. overtime, allowances and bonuses.
							Rs. a. p.	Rs. a. p	Rs. a. p.
Carpenters ..		Males	T	8 & 9	78	78	1 7 3	2 0 0	2 0 0
Turners ..		,,	,,	,,	83	83	1 6 6	1 15 6	1 15 6
Fitters		,,	,,	,,	379	379	1 6 2	2 1 6	2 1 6
Moulders ..		,,	,,	,,	16	16	1 4 4	1 11 5	1 11 5
Machine Attendants		,,	,,	,,	179	179	1 2 0	1 9 7	1 9 7
Machine Helpers ..		,,	,,	,,	50	50	0 12 6	1 1 10	1 1 10
Finishers ..		,,	P & T	,,	410	410	1 0 3	1 6 8	1 6 8
Drivers ..		,,	T	,,	76	76	0 15 6	1 10 4	1 10 4
Digester Attendants		,,	,,	,,	19	19	0 14 5	1 5 1	1 5 1
Firemen ..		,,	,,	,,	117	117	0 14 1	1 3 10	1 3 10
Beaters ..		,,	,,	,,	28	28	0 13 1	1 1 10	1 1 10
Cleaners ..		,,	,,	,,	141	141	0 12 9	1 3 7	1 3 7
Khalasis ..		,,	,,	,,	246	246	0 12 3	1 4 5	1 4 5
Oilers		,,	,,	,,	110	110	0 11 7	1 2 1	1 2 1
Label Pasters ..		,,	,,	,,	22	22	0 11 3	0 15 0	0 15 0
		Females	,,	,,	11	11	0 6 0	0 7 6	0 7 6
Paster Boys ..		Males	,,	,,	20	20	0 7 3	1 3 3	1 3 3
Dryers		,,	,,	,,	27	27	0 9 11	0 15 6	0 15 6
Pulpers ..		,,	,,	,,	11	11	0 9 0	0 12 3	0 12 3
Coolies & Carriers		,,	,,	,,	2,954	2,954	0 10 8	0 15 11	0 15 11
		Females	,,	,,	211	211	0 5 10	0 8 5	0 8 5
					5,188	5,188			

Before commenting on the figures in the table, it may be stated that there are considerable variations both in the wages and earnings as between unit and unit. For instance, in the unit situated at Raniganj, the wage level is distinctly lower than that in the Titaghur Paper Mills. The basic wages of a very large proportion of the workers in Raniganj are about As. 0-8-0 per day, the average earning being Rs. 0-12-6.

The main occupations in Paper mills are of coolies and carriers and these account for nearly three fifths of the total labour force employed. The average basic wage of coolies and carriers is about As. 0-10-0 and their average daily earning about a rupee. It is somewhat striking that the average basic wage of female coolies is a little less than As. 0-6-0 and their average daily earning about Rs. 0-8-5. Carpenters, Turners, and Fitters are among the best paid operatives whose basic daily rate is 1-6-0 to 1-7-0 their average daily earning being in the neighbourhood of Rs. 2-0-0. Finishers form a large category of

the workers employed. While in three of the units they were all on piece-rates, in one unit, they have been shown as time workers. Owing to the very considerable overtime put in, Finishers in one unit, earn nearly Rs. 2-8-0 per day. Among adult males, the lowest paid category seems to be that of Paster boys whose average basic wage is As. 0-7-0 and average daily earning Rs. 1-3-3. The higher earning as compared to the basic wage is due to the considerable overtime put in.

In considering the figures of earnings, due note must be taken of the fact that in the case of two units, the earnings also include certain allowances such as the A.R.P. allowance, which would not be payable in normal times.

Dearness allowance :—As between mill and mill there is no uniformity in regard to the payment of dearness allowance. All the concerns, however, pay a part of the allowance in kind in the shape of cheap rations. Rations are withheld if a worker remains absent without leave even for one day in the wage period.

In three of the units the allowance paid in cash is divided into two parts, one part being related to the earning of the worker and the other a flat rate per month. The former comes to As. 0-1-6 per rupee earned while the flat rate is Rs. 5-0-0 per month in two units and Rs. 8-0-0 per month in the third. The unit in Raniganj pays 15 per cent. of the wages earned as dearness allowance.

Other allowances.—In two units workers who volunteer for A.R.P. work are paid an extra allowance of Rs. 7-12-0 per month if they are present on all the working days. In the event of absence on Sundays payment is made at the rate of As. 0-4-0 per day. No other allowances or bonuses are paid to the workers.

The wage period is generally a month in case of all the units, although in one unit some workers are paid fortnightly. Payment is made within six to ten days of wages becoming due. From the wages and earnings table given above, it would appear that almost no fines are imposed.

Housing.

Of the three units in the Calcutta Industrial area only two provide housing to about 25 per cent. of their workers. The quarters supplied are of the barrack type or the semi-detached family type. Sometimes the barracks are one storyed buildings. Including the family quarters one unit supplied 166 living rooms. The rooms are generally single, measuring 12 ft. × 12 ft. or 14 ft. × 16 ft. Four to six workers live in a single room tenement. The rent for each room is about Re. 1-0-0 per month. The rent for a family quarter consisting of one room only is Rs. 2-0-0 per month. There are no individual arrangements for water and sanitation. Another unit in Calcutta has no provision for family quarters but has only built barracks. About three workers live in each room. The rent charged varies from As. 0-4-0 to As. 0-12-0 per month. Although these are mostly single room tenements, they are on the whole well lighted and ventilated and the housing condition of workers in these factories compare favourably with housing conditions of workers employed in some other industries like Jute.

The factory in Raniganj provides housing to above 90 per cent. of its employees. In addition to the barrack type *kutcha* quarters, it has built one two storeyed building consisting of 32 rooms and five new type quarters consisting of 44 rooms each. The dimensions of the rooms are 10 ft. × 12 ft. and the rent charged is Rs. 2-0-0 for new quarters and Re. 1-0-0 per room per month in other cases. Here again, the arrangements for drinking water, latrines, etc. are common to each set of houses. The housing provided at Raniganj by the Paper factory there, especially in the new type of quarters, is very much better than the housing provided for paper mill workers in Calcutta.

Welfare work.

In all the units of the industry adequate arrangements have been made for the supply of drinking water and for the provision of urinals and latrines. There are separate latrine and urinal arrangements for male and female workers. The latrines are mostly of the septic tank variety. It is understood that some of the units provide iced water to their workers during summer months. Proper medical arrangements appear to have been made by all the units and as a matter of fact one of them has built a well equipped hospital for workers with 16 beds, 8 for males and 8 for females. Hospital arrangements have been made also for attending to surgical cases. All the units have appointed properly qualified medical officers to be in charge of medical arrangements.

Two of the units have recently started canteens for their workers in which cooked food is supplied at a cost of As. 0-3-6 per meal. They also supply tea at half an anna per cup. No profit is made by the employers in running the canteens. In another unit only tea and light refreshments are sold to workers at market rates.

None of the units has provided creches for the children of their female workers.

Only one unit conducts a free primary school for the benefit of the children of its workers. Two other units pay a small donation to local schools attended by the children of their work-people.

All the four mills have arrangements for selling food-stuffs and other articles of daily consumption. The articles sold are generally rice, atta, dal, sugar, salt and mustard oil. A somewhat striking feature of welfare work in paper mills in Bengal is that in all the four units there are co-operative banks from which the workers can borrow money at nominal rates of interest. All workers in these factories are eligible to be members of the Banks by buying shares, the value of which varies from Rs. 2-0-0 to Rs. 5-0-0. The rate of interest usually charged to the workers is 8⅓ per cent.

Another striking feature is that three of the units have pension schemes in force for their operatives while one has a scheme of Provident Fund. There are variations in the terms and conditions of pension in the units having a pension scheme for their operatives.

Trade unionism in the proper sense of the word is very weak in this industry although the workers in one of the units have formed themselves into a Trade Union.

CHAPTER III.—BIHAR—DALMIANAGAR.

Employment.

From the point of view of the number employed, one of the larger factories in the country, apart from the Titaghur Paper Mills in Bengal, is the one situated at Dalmianagar in the Shahabad district of Bihar and managed by Rohtas Industries Limited. It employs nearly 2,000 workers and as compared to pre-war there has been a very rapid expansion in the number employed because in 1939 the number of operatives in this factory, was 1377 only. Nearly four-fifths of the workers are on a time rate of pay. No women are employed. The employees in this factory are recruited and paid directly by the Company. All recruitment of skilled and semi-skilled labour is done through a Recruitment Board appointed by the Company.

Workers are classified as temporary, permanent and casual. A temporary worker is made permanent after a period of one month. The difference between the privileges of temporary and permanent workers is that while the latter are entitled to contribute to the Provident Fund and also get sick leave and 7 days' privilege leave in a year the former cannot contribute to the Provident Fund and get only 7 days' sick leave with pay in a year.

This factory had in 1944 a turn-over of about 15 per cent. This is accounted for largely by the number of dismissal cases which numbered 201. The reason for so many dismissals, it is reported, is that the management does not countenance any flagrant breach of its rules.

At the time of the enquiry it was found that absenteeism was about 11 per cent. On Saturdays, however, it is reported that absenteeism is always high because the workers like to combine Saturday with Sunday to go to their villages. On Saturdays, therefore, absenteeism is about 20 to 21 per cent.

Working Conditions, Hours of Work and Shifts.

There are no Standing Orders for the operatives as such but there are certain well defined rules governing the relations between the employers and the employees.

The factory is well ventilated and lighted. A shelter has been provided for the workers for rest during the recess periods. Sunday is a regular closed holiday for general duty workers while those on continuous processes get 32 hours rest after 12 days' work. The workers are provided with ice water during summer months in their own departments.

This factory works three shifts in the continuous processes and two general duty shifts. In the continuous process shifts the hours of work are 7½, the spread-over being 8, while the hours of work of the general duty shifts are 7.30 a.m. to 12.30 p.m. and 2 p.m. to 6 p.m. and 6 p.m. to 11 p.m. and 1 a.m. to 5 a.m.

Wages and Earnings.

There have been no changes in the basic wages since the outbreak of the war. The minimum wage paid to the least skilled operative is Rs. 15-0-0 per month. A wage census was conducted in this factory for selected occupations for the month of April 1944 and the following table gives in a summary form the results of the enquiry ;

TABLE V.

Table showing wages and earnings in selected occupations.

Industry.—Paper.

Centre.—Dalmianagar.

Name of Concern.—Rohtas Industries, Ltd.

Occupation.	Shift.	Sex.	Piece or Time	No. of hours of work per shift.	Number of Workers.	Number of Samples taken.	Average daily Basic Wages earned.	Average daily gross earnings incl. overtime, allowances and bonuses.	Average daily net earnings incl. overtime, allowances and bonuses.	Actual average net earnings in the wage period.	Average Basic wages earned in the wage period by samples with full attendance.*	Average net earnings in the wage period of samples with full attendance.*	Number of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Finishers	Gen.	Male	P	9	31	31	1 7 3	2 0 8	2 0 8	41 13 11	40 13 5	57 2 0	27
Finishers—Leather & Grey Board.	,,	,,	T	,,	4	4	0 10 4	1 0 6	1 0 6	27 2 1	20 0 0	32 0 0	31
Paper Making Machine Attendants—1st Asst.	I, II, III.	,,	,,	7½	2	2	1 6 2	1 13 5	1 13 5	55 2 6	..	..	31
Paper Making Machine Attendants—II Asst.	,,	,,	,,	7½	3	3	0 13 3	1 3 6	1 3 6	32 7 3	30 0 0	42 0 0	31
Paper Making Machine Attendants—III Asst.	,,	,,	,,	7½	3	3	0 12 7	1 2 11	1 2 11	34 10 0	31 0 0	43 0 0	31
New Board Machine Attendants II Asst.	I	,,	,,	7½	1	1	1 1 10	1 8 0	1 8 0	46 8 0	34 8 0	46 8 0	31
New Board Machine Attendants III Asst.	I, II III.	,,	,,	7½	5	5	0 9 3	0 15 5	0 15 5	28 13 5	18 0 0	30 0 0	31
Head Cutters	II, III	,,	,,	7½	2	2	1 4 9	1 11 7	1 11 7	39 10 9	37 0 0	49 0 0	31
Assistant Cutters ..	,,	,,	,,	7½	2	2	0 8 3	0 14 5	0 14 5	27 1 6	..	..	31
Khalasis	Day	,,	,,	9	80	80	0 9 0	1 0 2	1 0 2	25 12 2	15 0 0	27 0 0	31
Coolies	I	,,	,,	7½	703	703	0 7 9	0 14 1	0 14 1	24 15 2	15 1 5	27 2 0	31
					836	836							

* Figure relate to samples, who had actuany worked full time during the wage period.

Coolies form the vast majority of workers in this factory. Their daily average basic wage comes to 0-7-9, their average net earning being 0-14-1. Khalasis are numerically the next important group and their daily average wage comes to As. 9 and their average daily net earning to about one rupee. Among piece workers, Finishers are the most important. There are various grades of Finishers according to the degree of skill and there is considerable variation in their basic wages which vary from As. 12 to about Rs. 1-14-0 per day. On an average, a Finisher gets by way of daily basic wage Rs. 1-7-3, his daily net earning being about Rs. 2-0-0.

The skilled workers in this factory are placed in an incremental scale. The annual increment varies from As. 0-8-0 to Re. 1-8-0.

The following is the scale of dearness allowance in the case of time workers in this factory :—

Wages per month.	Dearness allowance.
Up to Rs. 30	Rs. 12 p.m. for full attendance.
From Rs. 31 to Rs. 50	Rs. 14-8-0 Do.
From Rs. 51 to Rs. 75	18-8-0 Do.
From Rs. 76 to Rs. 100	20 Do.
From Rs. 101 to Rs. 150	24 Do.
From Rs. 151 to Rs. 200	30 Do.
Above Rs. 200	40 Do.

It will be seen that dearness allowance is linked up both with income and attendance. So far as piece-workers are concerned, they are given dearness allowance at a flat rate of 40 per cent. of their earnings.

This factory paid a bonus at the rate of 1½ month's basic wages for the year 1943-44. The payment of the bonus is dependent on the length of service according to the following scale :—

Length of service	Bonus.
1 year	1½ months basic wages.
between 9 and 12 months	1 Do.
between 6 and 9 months	½ Do.
between 3 and 6 months	7½ days Do.
below 3 months	*Nil.*

It is understood that about 90 per cent. of the workers received the bonus.

The amount collected by way of fines is credited to the Labour Welfare account for purposes of welfare work.

The period of wage payment is a month for all workers and wages are paid within 7 to 10 days after the wage period. The monthly-rated workers are paid for Sundays only if they are present both on Saturday and Monday.

Permanent monthly-rated workers get 7 days' privilege leave with pay in the year and also 7 days' sick leave with pay. Temporary monthly-rated workers get only 7 days' sick leave in the year. Piece workers are not entitled to any leave with pay. The company does not employ any daily-rated workers.

Housing.

About 31 per cent. of the workers are housed in some 200 quarters, provided by the Company. There are three types of quarters : family quarters, bachelors' quarters and cooly quarters. The first type contains a room 13 ft. × 10 ft., a verandah, a kitchen, a water tap, a bath room, a latrine and an enclosed courtyard. Electric light is supplied free of charge and the rent for the quarter is Rs. 4-0-0 per month only. A bachelor's quarter contains one room 10 ft. × 10 ft., a kitchen, a verandah, an enclosed courtyard and a latrine, and the rent charged is Rs. 2-8-0 per month. In the cooly quarters there is a room 10 ft. × 10 ft., a verandah and kitchen, the rent charged being Re. 1-0-0 per month only. All the workers' houses are properly drained. The family quarters are usually allotted to well paid workers like mistries, jobbers, etc. The Majority of the operatives live in class II or class III type of quarters which are not so well ventilated as the class I quarter. It is understood that there is a very great demand for workers' quarters. This demand is now being met by fresh construction but the management are experiencing considerable difficulty in getting building material although there is no difficulty in regard to building sites.

Workers who cannot be accommodated in the quarters provided by the company usually live in their own *kutcha* houses in the surrounding villages while a few live in rented quarters in the town paying a rent of about Rs. 3-0-0 per room 10 ft. × 9 ft.

Welfare activities.

This concern is following a very forward policy in regard to welfare activities for its workpeople. They run a well equipped hospital with allopathic, homeopathic and ayurvedic sections, with a female ward, a maternity ward, etc. Food is provided free of charge to indoor patients. The hospital is in charge of well qualified doctors, male and female. It also provides a school up to the 10th class where instruction is given free of charge and books and uniforms are also supplied free to the children of the poorer sections of the workers. The school is very well attended. Moreover, a primary school and a school for adults are also provided. The Company's welfare centre contains a library and reading room. Playing fields are provided for the workers for out-door recreation, while provision has been made for indoor games, gymnastics, etc. in the labour welfare centre which is in charge of a Labour Welfare Officer. The company also runs a store where many necessaries of life, including clothing, are supplied at market or controlled rates, whichever is cheaper. Fuel, washing soap and soda are sold at a concession of 30 per cent. as compared to the market price.

A Provident Fund for the operatives was started by the company in the year 1942. It is not compulsory. Every employee who completes six months' service can become a member of the fund. The monthly contribution in any one year is 1|16 of the pay subject to a minimum of rupee one per month and a maximum of rupees fifty per month. The employers contribute an equal amount. The employer's contribution is payable in full to anyone who has put in 15 or more years' approved service, those between 10 and 11 years' service getting only 50 per cent. of this contribution. As the fund is voluntary, it is found that only 4 per cent. of the workers have joined it.

CHAPTER IV.—BOMBAY.

There are five paper mills in the Province of Bombay : one at Ahmedabad, one at Poona, two in Bombay City and one in the suburbs of Bombay. All these have been covered for purposes of the present enquiry. The following table sets out the number of persons employed in each of these mills.

TABLE VI.—

Name of Concern.	Number employed.			Total.
	Men.	Women.	Children.	
1. Deccan Paper Mills, Poona	424	414	42	880
2. Gujarat Paper Mills, Ahmedabad ..	606	46	..	652
3. Western India Paper Mills, Vikroli ..	89	26	..	115
4. Girgaum Paper Mills, Bombay	35	38	..	73
5. Paper Pulp Conservation Ltd., Bombay ..	46	72	..	118
	1,200	596	42	1,838

It will be seen that the largest unit is at Poona, while the three units in Bombay are comparatively small concerns. The mills at Poona and Ahmedabad produce paper, while those in Bombay make card-boards etc. A noticeable feature of the above table is the large percentage of women employed in the unit at Poona.

One of the factories in Bombay was started only in the year 1943. So for as the other units are concerned, it appears that as compared to the pre-war period there has been a substantial growth in the numbers employed by them, the employment figure having risen by nearly 100 per cent. All the units between them employ nearly 2,000 workers.

Labour is recruited directly in all these units and recruitment is generally made at the gates. Preference is given to relatives of those in employment. A special feature of the Deccan Paper Mill is that about 200 of the workers belong to the criminal tribes and are recruited from their industrial settlement.

One of these concerns has Standing Orders for regulating the relations between themselves and their employees. Except the Mill at Poona, which has recently appointed a Labour Officer, the managers themselves look into matters relating to labour in other cases.

All the workers in the industry except those in the Deccan Paper Mill are on a temporary footing. In the Poona mill, however, nearly 95 per cent. of the employees are classed as permanent. Permanent workers in this mill get 15 days' sick leave with full pay in a year which can be extended by 15 days leave on half pay.

None of the concerns has a system for the training of apprentices. Labour turnover in the industry is reported to be very high. This has been so, particularly in recent years when there has been a demand for labour at higher wage-rates than those prevailing in these mills. As a matter of fact, the mill

in Poona reported that during 1943, labour turnover was more than 50 per cent.. The reasons given for this were the prevalence of malaria and higher wage-rates offered by military camps round about Poona. The Gujerat Paper Mill reported almost cent. per cent. increase in turnover. The reason for the higher labour turnover is the attraction of high wages, particularly dearness allowance, prevailing in the textile mills at Ahmedabad.

Although in Poona and Ahmedabad the labour turnover is very high, the percentage of absenteeism is only 8 and 21 respectively. In the paper mills in Bombay, the percentage of absenteeism comes to about 10 to 12 or very nearly the same as in other industries such as Cotton. In one centre it was reported that one of the reasons for absenteeism was that the workers had to spend much time for obtaining their daily necessities such as food grains from the shops where rationed articles are sold.

Working Conditions, Hours of Work and Shifts.

The mill at Poona is fairly up-to-date. The departments of all these units are spacious but some of them are very badly kept. So far as the supply of drinking water, sanitary arrangements for the workers etc., are concerned, all these units have have made provision in accordance with the provisions of the Factories Act.

The mills at Ahmedabad and Poona work three shifts each. The hours of work at Ahmedabad are :—

9 a.m. to 5 p.m.,
5 p.m. to 1 a.m., and
1 a.m. to 9 p.m.,

In Poona, the shift hours are 6 a.m. to 2 p.m.,
2 p.m. to 10 p.m., and
10 p.m. to 6 a.m.

In the Ahmedabad mill, there is also a general shift where the hours of work are from 8 a.m. to 6.30 p.m. with an interval of 1-1|2 hours between 12.30 and 2 p.m. In the Poona mill, in departments which work two shifts only, there is a system of relay. Departments working two shifts have a spreadover of 12 hours, while the others have a spread-over of 10 hours.

From the information obtained, it appears that there are very few accidents in Paper mills.

Wages and Earnings.

A wage census covering all the employees in these five units was taken for the month of March 1944 and the following summary tables gives the wages and earnings of persons employed in important occupations :—

TABLE VII.

Table showing wages and earnings in selected occupations in March 1944.

Industry—Paper.

Centre—BOMBAY (Poona, Ahmedabad and Bombay).

* *Weigted Average.*

Name of Occupation.	Shift.	Sex.	Piece or Time.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average of daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses.	Average daily net earnings including overtime, allowances & bonuses.	Actual Average net earnings in the wage period.	Average Basic Wages earned in the wage period by samples with full attendance.*	Average net earnings in the wage period of samples with full attendance.*	No. of working days in the wage preriod.
							Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Fitters	I	Male	T	9 & 8	11	11	1 3 4	1 12 1	1 12 1	..	..	..	27 & 26
Finishers	,,	,,	T & P	,,	91	91	0 14 3	1 9 6	1 9 6	..	..	..	,,
Oilman	,,	,,	T	9 & 7½	41	41	0 10 2	1 3 3	1 3 3	32 7 3	..	..	27
Machine Tenders	I & II	,,	,,	,,	104	104	0 9 10	1 4 0	1 4 0	29 6 9	18 7 5	36 9 10	,,
Dryers	I	Fem.	,,	8	23	23	0 6 0	0 12 0	0 12 0	12 14 1	9 12 0	19 8 0	26
Sorters	I	Males	,,	,,	20	20	0 9 6	1 9 9	1 9 9	22 9 0	11 13 0	32 1 0	27
	I	Fem.	T & P	8 & 9	266	266	0 4 4	0 13 10	0 13 10	..	..	..	27
Carpenters (Mech. Shop) ..	I	Male	T	8	12	12	1 3 1	1 15 1	1 15 1	47 9 1	30 6 0	50 10 0	27
Reliever (Rag)	I	Fem.	,,	9	21	21	0 4 1	0 11 9	0 11 9	14 8 0	..	..	27
H. P. Boys	I	Chd.	,,	,,	27	27	0 2 7	0 8 5	0 8 5	12 2 6	4 3 6	14 5 6	27
Beaters (Machine and Beater workers).	I	Male	,,	8	13	13	0 8 6	1 2 1	1 2 1	24 5 2	20 0 0	37 0 0	26
Coolies, Carriers & Pickers ..	I	,,	,,	9 & 8	381	380	0 9 0	1 2 0	1 2 0	..	..	..	26
		Fem.	,,	,,	143	143	0 8 11	0 12 11	0 12 11	..	..	..	27 & 26
					1,153	1,152							

*Figures relate to samples who had actually worked full time during the wage period.

There are considerable variations in the wages and earnings in these units. The level of wages is the lowest in Poona where unskilled workers, particularly females, get as low a basic wage as As. 4 per day. While, however, female workers in Poona get only as. 4 per day as their basic wages, their daily earning comes to about as. 10 per day. In Ahmedabad, while the basic wage of a female cooly is as. 5, her daily earning amounts to Rs. 1-1-0 per day. The basic wage for females in Bombay is much higher being 0-13-9 although the net earning is not very much more, being 0-14-7 per day only.

The above table which contains the weighted averages of basic wages and earnings shows that fitters and carpenters are among the best paid operatives. The largest category of workers is coolies and carriers. They seem to have an average daily basic wage of as. 9 with an average daily earning of about Rs. 1-2-0. It is noteworthy that of those covered in the table 453 or 39.2 per cent. were females. These were employed mostly in the mill at Poona as sorters, coolies and carriers. Their average daily wage comes to 0-4-4 and their average daily earning to 0-13-10 only.

Except the concern at Poona none of the others imposes any fines.

The wage period in all the concerns is the English calendar month. Wages are generally paid within the period laid down under the Payment of Wages Act.

Dearness Allowance.—The mill at Poona has been paying a dearness allowance since October 1939. The rates have been changed from time to time. Since April 1944, however, on the recommendation of the Commissioner of Labour, Bombay, those getting less than Rs. 1-4-0 per day are paid dearness allowance equal to 50 per cent. of that paid by the Bombay Millowners' Association. Those getting over Rs. 1-4-0 but not over Rs. 2-0-0 per day continue to get dearness allowance of as. 10 per day while those getting over Rs. 2-0-0 per day get 30 per cent. of their wages by way of dearness allowance.

The Gujerat Paper Mills pay dearness allowance at the rate of as. 12 per day to all their workers. In the two units in Bombay, no dearness allowance is paid while in the unit in the suburb of Bombay, there is no definite rule regarding the grant of dearness allowance which is granted on the merits of each case.

The mill at Poona has been paying a profit bonus at the rate of one month's wages. None of the other concerns pays any bonus.

Housing.

About 8 per cent. of the workers employed in the Poona mill are provided with free housing. They are single-room tenements, approximately, 18 feet to 20 feet in size. Some of these tenements have tiled roofing while others are covered with corrugated sheets. Ventilation is good but sanitation is poor. The housing colonies are situated in two different places, one near the factory and the other a few furlongs away.

About 10 per cent. of the workers in the Gujerat Paper Mills are housed by the company. The rent charged is Rs. 4 per month. They are all single room tenements measuring 12 ft. × 22 ft. The rooms are partitioned into a living room, a kitchen and a bath. There is also a verandah 6 ft. wide. These quarters are well ventilated and the sanitary arrangements are good.

No housing is provided by the other three units.

Welfare activities.

Very little is being done in this industry by way of welfare work except in the Deccan Paper Mills at Poona where some welfare work is undertaken

by the employers. This mill maintains a dispensary for the benefit of the workers and their families. The dispensary is in charge of a qualified doctor assisted by a compounder. The mill also runs a canteen and about 200 to 300 workers take advantage of it daily. There is a primary school for the children of the workers and the company also conducts adult literary classes for the benefit of their employees. There is a creche but it cannot be said that it is well kept. A grain shop is maintained by the company where articles are sold at controlled prices.

The Gujerat Paper Mills maintains a dispensary for the benefit of their workers. A canteen and a creche, it is reported, are under construction. There is a grain shop where articles are sold at controlled prices.

The other three units have no welfare activities.

In none of the units is there a regular system for making provision for the workers' future. In the Deccan paper mills, however, pensions or gratuities are given at the discretion of the management. So far, there have been 10 cases of pensions and 7 of gratuities. There is no provision of any kind for leave with pay except medical leave in the Poona mill.

Trade Unions.

There are no unions in the industry except one in the Deccan Paper Mills at Poona which is both registered and recognized.

Taking the Paper Industry in the Bombay Presidency as a whole, it is seen that in spite of the fact that the production of this industry has been controlled by Government, the conditions of work and wages are none too satisfactory. The working conditions inside the factory can be described as being fair. There is large labour turnover due largely to the more attractive rates of wages obtaining outside the industry. The wage-rates compare unfavourably with those prevailing in industries in neighbouring localities and so do the scales of dearness allowance paid. Except in the case of one unit, very little is being attempted by way of welfare work.

The workers get no leave with pay nor is there any provision for their future.

CHAPTER V.—ORISSA—Brajrajnagar.

There is a large paper factory at Brajrajnagar near Jharsuguda in the Sambalpur district in Orissa. This is a Limited Company under the agency of Birla Brothers. The factory was started in 1936 but actually commenced production just before the War. This is the only paper factory in Orissa.

Employment.

The factory employes about 1276 persons, mostly males. No children are employed while the number of women employees is only 35. Employment in this factory has increased considerably as compared to pre-war having risen up from 561 persons to 1276 persons. The majority of the workers are unskilled and are on time-rates of pay. Only 80 workers employed in the Finishing Department are on piece rates of pay.

The bulk of the Labour is employed directly by the company. Although there are 6 contractors employing about 132 persons, this labour is generally employed on erection work. The management of the company, however, exercises full control over contract labour and the wage-rates paid to them are not lower than those paid to the direct employees of the company.

All the workers on the muster rolls of the company are regarded as permanent. They cannot be dismissed without 15 days' notice.

This factory experiences no shortage of labour and the labour employed is mostly local. Recruitment is generally made at the factory gates. Some little difficulty has, however, been experienced in getting skilled workers. For this purpose generally a paid servant of the company is deputed and is asked to recruit labour from outside. The travelling expenses of such labour are borne by the company.

As this is the only factory in this centre there is not much labour turnover. Absenteeism amounts to about 14 to 15 per cent. which is largely due to sickness. Being agriculturists, there is a tendency on the part of the workers to return to their villages during the harvest season. This, however, does not cause any serious dislocation of work as there is always sufficient surplus labour to take the place of the absent men. The company has recently framed Standing Orders for their operatives. These are largely based on the Standing Orders for operatives to be found in Bombay mills.

In the Engineering Department of this factory there is a scheme of apprenticeship. The number of the trainees is about 40. There are no fixed rules regarding the remuneration to be paid to them.

Working Conditions Hours of Work and Shifts.

Being recently constructed, this factory is well ventilated and the working conditions inside the factory appear to be satisfactory.

Like other paper mills there are three shifts for process workers and a general duty shift as well. Workers in the Mechanics Department are mostly to be found in the general shift. In the general shift hours of work are from 7 a.m. to 11.30 a.m. and from 2 p.m. to 6.30 p.m., that is, the actual working hours are 9 the total spread-over being 11-1|2 hours. The work in the process department goes on from 6 a.m. for all the 24 hours. A process worker does not get any rest interval during the shift. Arrangements are, however, made to see that a process worker gets continuous rest for 32 hours between 9th and 10th day of work. A copy of the time table of holidays will be found in appendix II.

This factory has a system of change-over.

Wages and Earnings.

It has been reported that as compared to pre-war, basis wage-rates have not been increased except in certain occupations. For unskilled workers the basic wage-rates are Rs. 9 to Rs. 10 p.m. in the majority of the cases for males. There are very large variations in the rates laid down for skilled workers.

A wage census relating to the month of March 1944 covering all the employees in this factory has been conducted and the following table summarises the results of this enquiry for principal occupations.

TABLE VIII.

Table showing wages and earnings in selected occupations in March **1944.**

Industry.—Paper.

Centre.—Brajrajnagar (Orissa).

Name of Concern.—Orient Paper Mills Ltd.

Occupation.	Shift.	Sex.	Piece or Time.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses.	Average daily net earnings including overtime, allowances & bonuses.	Actual average net earnings in the wage period.	Average Basic Wages earned in the wage period by samples with full attendance.*	Average net earnings in the wage period of samples with full attendance.*	Number of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	March 1944
Fitters	..	Male	T	9 and 8	75	69	1 9 7	3 3 4	3 3 4	71 8 3	49 10 6	76 0 8	26, 30
Helpers	..	,,	,,	9	41	39	0 6 10	0 13 8	0 13 8	18 11 9	..	...	26, 30
Oilmen	..	,,	,,	,,	15	14	0 5 5	0 12 7	0 12 7	20 8 9	10 5 3	24 3 6	30
Khalasis	..	,,	,,	,,	58	56	0 15 0	2 2 2	2 2 2	50 12 8	..	..	26, 30
Beatermen	..	,,	,,	,,	3	3	0 11 1	1 9 11	1 9 11	41 9 10	21 0 0	49 0 0	30
Moulders	..	,,	,,	,,	2	2	2 4 10	5 9 2	5 9 2	143 9 0	45 0 0	107 9 6	26
Moulder Apprentice ..	..	,,	,,	,,	2	2	0 10 2	1 8 5	1 8 5	37 12 0	..	..	26
Turners	..	,,	,,	,,	13	13	2 1 2	3 10 7	3 10 7	92 14 8	..	..	26
Turner Apprentice	..	,,	,,	,,	8	8	0 10 7	1 9 2	1 9 2	28 14 10	9 0 0	21 0 0	26
Carpenters	..	,,	,,	,,	2	2	1 4 5	3 0 8	3 0 8	70 11 9	..	..	26
Finishers	..	,,	T & P	,,	82	77	0 12 8	1 6 8	1 6 8	29 1 6	31 13 1	39 11 8	26
	..	Fem.	,,	,,	12	12	0 5 9	0 11 11	0 11 11	15 15 8	9 8 0	19 8 6	26
Coolies	..	Male	T	,,	533	502	0 5 3	0 12 3	0 12 3	17 5 10	..	..	28, 30
					846	799							

*Figures relate to samples who had actually worked full time during the wage period.

Apart from a few Turners and Moulders, Fitters and Carpenters seem to get the highest daily basic wages. In the skilled occupations, there is considerable overtime work with the result that earnings in these occupations are fairly high. Among the semi-skilled occupations, Khalasis have a basic wage of as. 15 per day with an average daily earning of Rs. 2|2|2. Next to Khalasis, Finishers get a wage of Rs. 0|12|8 with an average daily earning of Rs. 1|6|8. A very large majority of the workers, however, are coolies. Their basic wage is only 0|5|3 per day and their average daily earning is Re. 0|12|3 per day. For 26 days' work, such workers can hope to earn about Rs. 20 per month only.

In addition to their basic wages all the permanent workers are given what is known as the prosperity allowance since April 1943. The rate is 100 per cent. of the basic wages earned.

This factory pays dearness allowance to all its workers at a rate of 33-1|3 per cent. of the basic wage earned.

There are two wage periods. Temporary workers are paid weekly every Saturday while permanent workers are paid every month on or before the 10th day of the month following the one for which wages have become due.

One feature in this factory is that no fines are imposed.

Housing.

This factory houses a large proportion of its employees. It has three types of quarters : family quarters, bachelors' quarters and temporary quarters. There are 352 family quarters, 108 bachelors' quarters, while about 10 per cent. of the employees are housed in temporary quarters. Each family quarter contains one room 12 ft. × 10 ft., a spacious court-yard and a verandah. These are well lighted and ventilated. Arrangements for water supply and sanitation are common, except in the quarters which are newly built. The supply of water is generally obtained through wells. In the bachelors' quarters about 350 workers are accommodated. Each of these quarters has a room 12 ft. × 9ft. and a verandah. In these quarters also the arrangements for the provision of water and sanitation are none too satisfactory. Both these types of quarters are pucca.

The temporary quarters are extremely unsatisfactory as they are in the nature of tin sheds built with mud.

Welfare Activities.

The factory maintains a dispensary in charge of a qualified doctor assisted by four compounders. The doctor also visits the workers in their homes. A canteen on a small scale is maintained. It is run by a contractor. There is a good school for the children of the workers with both primary and secondary classes. Books, etc., are given free in deserving cases. There is a grain shop in which the commodities are sold almost at the current market rates.

The welfare work that is being done would appear to admit of improvement especially in view of the fact that the factory seems to be financially very well off. It is to be noted in this connection that the factory has not made any provision for the future of the workers nor is there a system of leave with pay. It is, however, understood that a scheme for the expansion of welfare work is under the active consideration of the company.

More than two-thirds of the employees of this factory are members of a Trade Union which was started in 1940. It is a registered union but has not been recognized by the employers so far.

CHAPTER VI.—THE PUNJAB—Jagadhri.

Employment.

There is a large paper mill at Jagadhri in the Ambala district of the Punjab. The number of persons employed in the factory at the date of enquiry was 1,124, four of whom were females and the others males. Employment in this factory as compared to pre-war has gone up very considerably or by about 37 per cent. A very large majority of the workers are on a time-rate of pay, only 48 out of the total being on piece rates. The workers are employed and paid directly by the Company. Apart from substitutes, there are no temporary workers, all being regarded as permanent. Only in the Finishing Department of the mill is there a system of keeping apprentices for a period of one or two years. These apprentices are paid Rs. 12 per month, plus dearness allowance. There is not much absenteeism in this factory and it is reported that the percentage of absenteeism is about 6 only.

Working Conditions, Hours of Work and Shifts.

Being a continuous process factory it works three shifts of 8 hours each. In the Finishing Department and the workshop, however, only one shift of 9 hours is worked.

The departments of this factory are well lighted and ventilated. A rest shelter is also provided for the workers in the precincts of the factory. The process workers are given two days' rest in the month while workers in the permanent day shift get all Sundays off.

Those getting Rs. 20 p.m. or below get 15 days' leave with pay and 15 days' sick leave on half pay and those getting from Rs. 20 to 74 get 20 days' leave with pay and 20 days' sick leave on half pay.

Wages and Earnings.

A wage census of all workers was taken in this factory in selected occupations for the month of April 1944 and the following table summarises the results of the enquiry.

TABLE IX.

Table showing wages and earnings in selected occupations in April, 1944.

Industry..... Paper.

Centre.....Jagadhri (Punjab).

Name of Concern.....Shree Gopal Paper Mills Ltd.

Occupations.	Shift.	Sex.	Piece or Time.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses.	Average daily net earnings including overtime, allowances & bonuses.	Actual average net earnings in the wage period.	Average Basic Wages earned in the wage period by samples with full attendance.*	Average net earnings in the wage period of samples with full attendance.*	Number of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Paper Making Machine Attendants 1st Asst.	I, II, III	Male	T	8	7	7	1 6 4	1 11 6	1 11 6	45 9 10	40 0 0	50 4 0	29, 28
Paper Making Machine Attendants II Asst.	,,	,,	,,	8	6	6	1 0 3	1 7 1	1 7 1	36 3 0	28 0 0	40 0 0	29, 28
Paper Making Machine Attendants III Asst.	,,	,,	,,	8	7	5	0 9 3	1 1 2	1 1 2	26 8 0	..	..	,,
Press men : Dept. Paper making.	,,	,,	,,	8	17	14	0 6 7	0 12 2	0 12 2	20 0 2	12 0 0	22 0 0	,,
Finishers—Dept. Finishing ..	Gen.	,,	P	9	44	44	1 11 11	2 4 3	2 4 3	47 8 8	41 4 2	53 3 10	23
Cutter—Head	II	,,	T	8	3	3	1 4 11	1 11 7	1 11 7	49 5 4	37 5 4	45 5 4	28, 29
Cutter—Assistant	III	,,	,,	8	6	6	0 13 3	1 3 2	1 3 2	32 8 10	23 8 0	34 0 0	,,
Coolies	I	,,	,,	8, 9	399	398	0 6 4	0 11 9	0 11 9	18 10 1	12 1 5	22 2 11	28, 29, 30
Coolies	Gen.	Fem.	,,	9	17	17	0 5 4	0 10 8	0 10 8	17 7 5	9 8 0	19 8 0	26
					506	500							

* Figures relate to all persons who are actually worked full time during the wage period.

It will be seen from the table that out of the 500 persons covered by the enquiry 398 were coolies. It is found that more than one-third of the coolies are in the wage category as. 4 to as. 6 and very few in the wage category as. 8 to as. 10. The average daily rate for male coolies comes to 0|6|4. The highest paid occupation from the point of view of basic wages seems to be that of Finishers who are on piece rates. The next best paid occupation seems to be of Machine Attendants who are time workers and whose average daily basic wage comes to Rs. 1|6|4. The average daily earning of coolies including allowances comes to Re. 0|12|5 per day, those of Machine Attendants to Rs. 1|11|6 and of Finishers to Rs. 2|4|3.

The following was the scale of dearness allowance in this factory at the time of enquiry :

Wages per month.	*D. A. at the rate of—p.m.*
Below Rs. 26	Rs. 10
From Rs. 26 to 48	Rs. 12
From Rs. 49 to Rs. 149	25 per cent. of wages.

The allowance is calculated on the basis of the whole calendar month including holidays and other closed days. If a piece worker has no work on any particular day, he is given Re. 1 as compensation.

For the year 1943 the factory paid a bonus at the rate of 2 months' basic wages to those with six months' or more service, one month's wages to those between 3 and 6 months' service while no bonus was paid to those with less than 3 months' service.

The wage period is a calendar month and wages are paid within 7 days of their becoming due.

Fining in this factory is only nominal.

Housing.

Nearly 75 per cent. of the employees have been supplied with housing accommodation by this company. No rent is charged. The quarters consist mostly of one room tenements 10 ft. × 9 ft. with a verandah and an enclosed courtyard. There are common sanitary arrangements for these quarters. The company supplies electricity free of charge in the workmen's dwellings. All the houses are well ventilated.

Such of the workers as do not live in the Company's houses live in their own *kutchi* dwellings in the adjoining villages.

Welfare.

This company has established a welfare trust to which it makes an annual contribution. It is intended that when this fund accumulates to a lakh of rupees, all welfare ativities will be financed out of the interest earned.

This factory has its own hospital with 22 beds in charge of a full-time qualified doctor. The hospital is very well patronised by the work-people. There is a canteen run by a contractor. The factory also runs a primary school for boys and girls in which no fees are charged. There is a grain shop in which wheat to the extent of 22-1|2 seers per head is given at a price 10 per cent. lower than the controlled price to those earning up to Rs. 20 per month. Playing fields have been provided and there is also a small club where provision has been made for a small reading room and indoor recreation.

This factory has made no provision for the future of its employees by way of a provident fund, gratuity or pension although it is understood that such schemes are under contemplation.

CHAPTER VII.—UNITED PROVINCES—Saharanpur.

Employment.

The paper mill at Saharanpur was established in 1938. It employs about 700 workers, mostly on time-rates of pay. No women or children are employed. As compared to pre-war, this factory does not show any expansion in the volume of employment. All the workers are employed and paid direct. Although this is a recently started concern, a very considerable number of workers or nearly one-third have remained in the factory for more than five years and the labour turnover is very low so far as the semi-skilled and skilled operatives are concerned. On the other hand, turnover amongst the unskilled workers is extremely high. It is estimated that during the year 1944, on an average, absenteeism amounted to 4 per cent. only. This factory has adopted the Standing Orders of the Employers Association of Northern India. All vacancies are notified by putting up a notice at the gate.

Working Conditions. Hours of Work and Shifts.

Three shifts of 8 hours per day are worked with a rest interval of half an hour. In the Finishing Department, however, there is only one straight shift of 9 hours with a spreadover of 11 hours. The factory departments are well lighted and ventilated and on the whole the working conditions are satisfactory. In some departments, however, such as the Soda Recovery and the Grass Boiling Departments, where the work is done by hand, owing no doubt to the nature of the processes, the conditions of work are not very comfortable. This factory has provided a rest shelter for its operatives. Generally Sundays are closed days.

Wages and Earnings.

Since the outbreak of the war there have been no changes in the basic rates of wages paid. There is no system of graded promotions but increments in wages are given at the discretion of the management. A wage census of all workers in selected occupations was taken in this factory for the month of January 1944, and the following table summarises the results :—

TABLE X.

Table showing wages and earnings in selected occupations in January, 1944.

Centre.....Saharanpur (U.P.).

Name of Concern.....Star Paper Mills, Ltd.

Occupations.	Shift.	Sex.	Piece or Time.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses.	Average daily net earnings including overtime, allowances & bonuses.	Actual average net earnings in the wage period.	Average Basic Wages earned in the wage period by samples with full attendance.*	Average net earnings in the wage period of samples with full attendance.*	Number of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Paper Making Machine Attendants.	I, II III	Male	T	7½	15	15	1 0 3	1 14 0	1 14 0	51 4 2	28 13 10	53 9 3	Varying No. of days.
Duster Machine Attendants ..	,,	,,	,,	,,	42	42	0 8 4	1 4 9	1 4 9	35 9 1	15 2 1	37 4 9	,,
Press Men	,,	,,	,,	,,	9	9	0 8 4	1 4 9	1 4 9	35 3 3	14 14 5	37 5 5	,,
Finishers	Day	,,	P	9	32	32	1 7 1	2 5 10	2 5 10	56 15 2	37 2 7	60 9 2	25½
Cutters—(Head)	I, II	,,	T	7½	2	2	1 14 0	2 10 7	2 10 7	79 13 0	56 4 0	79 13 0	30
Cutters—(Assistant) ..	,,	,,	,,	,,	2	2	1 0 0	1 13 7	1 13 7	55 7 0	30 0 0	55 7 0	30
Coolies and Carriers ..	I, II, III	,,	,,	,,	287	287	0 8 1	1 4 1	1 4 1	36 6 10	15 2 0	36 8 11	30
					389	389							

*Figures relate to samples who had actually worked full time during the wage period.

It will be seen that the occupations in which the bulk of the operatives are employed are coolies and carriers. The average daily basic wage in these comes to 0-8-1. There are however, large variations in the basic wage of coolies ranging from as. 6 to as. 14. The higher paid coolies generally work in the chemical department. The average daily earning of a cooly comes to about Rs. 1-4-0. The highest wage is of head cutters being Rs. 1-14-0 per day. Their average daily earnings come to Rs. 2-10-7.

It will be noticed that in case of coolies the average daily earning is about 150 per cent. more than the average daily basic wage. The reason for this is the liberal rate of dearness allowance paid in this concern as explained below.

Dearness allowance.—A dearness allowance is paid in this factory on the scale laid down by the Employers' Association of Northern India. The allowance is being paid since the end of the year 1942. The following is the scale if the Cawnpore Subsidiary Cost of Living Index Number is between 181 and 200.

Categories.			Dear Food Allowance.
(*a*)	Wages	upto Rs. 15 p. m.	As. -/5/- a rupee.
(*b*)	,,	from Rs. 16 to 20 p. m.	-/4/6 ,,
(*c*)	,,	,, Rs. 21 to 30 p. m.	-/4/- ,,
(*d*)	,,	,, Rs. 31 to 40 p. m.	-/3/6 ,,
(*e*)	,,	,, Rs. 41 to 50 p. m.	-/3/- ,,
(*f*)	,,	,, Rs. 51 and above	10% of wages.

In December 1944 when the index stood at 283, dearness allowance was being paid at the rate of As. 10 per working day to all workers in addition to the above.

A bonus for the year 1943-44 has not yet been paid but it was paid for the year 1942-43 at the rate of one-sixth of the basic wages earned during the twelve months subject to certain conditions.

Fining in this factory is only nominal, the amount in the Fines Fund at the time of the enquiry being less than Rs. 10.

The wage period is a month and the wages are paid within a week of their becoming due.

Monthly-rated workers are given one month's leave with pay in a year. However, the majority of the workers in this factory being daily-rated get no leave with pay.

Housing.

Nearly 70 per cent. of the operatives are housed free of charge in the quarters built by the Company. Most of the lower paid workers are housed in single room quarters which have a verandah and an enclosed courtyard. Proper arrangements for drainage have been made in these quarters. In some cases there are common arrangements for water-supply and sanitation. The ventilation in most of these quarters is somewhat defective.

Welfare work.

The factory maintains a dispensary in charge of a doctor. It has a canteen run by a contractor where light refreshments are served. There is a small primary school for the benefit of the children of the operatives. The workers are also supplied wheat at a cost 10 per cent. lower than the controlled price up to a limit laid down by the rationing authorities. No provision has been made either for starting a provident fund or any pension or gratuity schemes. The welfare activities conducted by the factory would appear to leave room for considerable improvement.

The workers in this factory have formed a Trade Union.

CHAPTER VIII.—MADRAS—Rajahmundry.

Employment.

There is only one paper mill in the Province of Madras which is situated at Rajahmundry in the East Godavari district. It employs about 603 workers, 541 of whom are men, 61 women and only 1 child. In recent months the production of this factory has considerably increased, the output per month being about 200 tons of paper as against about 120 tons previously.

The labour employed is mostly local in character. It is recruited by the Factory Manager directly in consultation with the heads of departments as and when required. The factory has not appointed a Labour Officer but, the Secretary and the Factory Manager look after the grievances of the work-people. This mill has adopted the Standing Orders for operatives of the Southern India Millowners' Association, Coimbatore, for regulating the relations between themselves and the workers. According to these orders the employment of any permanent operative can be terminated without assigning any reason by giving 14 days' notice or payment of 13 days' wages in lieu of notice. Probationary operatives and substitutes can be discharged without notice. The Standing Orders also make provision for the grant of leave and holidays. The workers in this factory are entitled to 6 days' casual leave and 7 days' sick leave after the completion of one year's service, provided they have worked at least 90 per cent. of the working days in the year. The workers are also granted 10 holidays with pay in a year besides Sundays, which are usually weekly holidays for non-process workers. These 10 holidays are for festival days like *Pongal* and *Deepavali*.

Working Conditions, Hours of Work and Shifts.

Being a continuous process factory, the mill has three shifts of 8 hours each, from 11 p.m. to 7 a.m., 7 a.m. to 3 p.m. and 3 p.m. to 11 p.m. The workers on continuous processes are given 32 hours rest after every 10 days' work. There are also three general shifts one from 7.30 a.m. to 12.30 p.m. and 3 p.m. to 7 p.m. a second from 7 a.m. to 7 p.m. and the third from 7 p.m. to 7 a.m. with three hours' rest interval.

Persons working in hazardous occupations are supplied with rubber boots, goggles, etc.

Wages and Earnings.

A wage census of all workers in this factory was conducted for the month of April 1944. The following table summarises the results of the census for the principal occupations.

TABLE XI.

Table showing wages and earnings in selected occupations in April 1944.

Industry..... Paper.

Centre..... Rajahmundry (Madras).

Name of Concern.....The Andhra Paper Mills Ltd.

Occupations.	Shift.	Sex.	Piece or Time.	No. of hours of work per shift.	No. of workers.	No. of samples taken.	Average daily Basic Wages earned.	Average daily gross earnings including overtime, allowances & bonuses	Average daily net earnings including overtime, allowances & bonuses	Actual average net earnings in the wage period.	Average Basic Wages earned in the wage period by samples with full attendance*	Average net earnings in the wage period of samples with full attendance*	No. of working days in the wage period.
							Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Rag Cutters ..		Male	T	9	3	3	0 10 2	1 0 7	1 0 6	22 10 2	16 8 0	26 8 0	25
Motor-attendants		,,	,,	8	11	10	0 8 9	0 14 0	0 14 0	26 1 8	17 8 0	27 8 0	25
Fitters		,,	,,	9 & 8	26	26	1 0 11	1 6 8	1 6 8	35 11 8	..	..	25, 30
Helpers ..		,,	,,	,,	22	21	0 8 10	0 14 10	0 14 10	22 12 1	..	..	25, 30
Finishers ..		,,	,,	9	18	18	0 15 1	1 5 5	1 5 5	30 13 4	24 3 2	34 3 2	25
Oilmen		,,	,,	8 & 9	16	15	0 8 3	0 13 6	0 13 6	22 2 2	15 12 10	25 12 10	30
Turners ..		,,	,,	8	5	5	1 5 5	1 10 6	1 10 6	43 0 0	..	..	30
Firemen ..		,,	,,	,,	18	18	0 10 2	0 15 6	0 15 6	22 1 9	19 0 0	29 0 0	30
Carriers ..		,,	,,	8 & 9	11	11	0 8 6	0 14 1	0 14 1	24 1 2	12 12 9	25 6 9	25
Coolies		,,	,,	,,	243	237	0 8 3	0 13 6	0 13 6	21 3 10	..	..	25, 30
		Fem.	,,	9	77	73	0 6 4	0 12 4	0 12 3	17 8 9	..	..	25, 30
					450	437							

* Figures relate to samples who had actually worked full time duty in the wage period.

It will be seen that so far as basic wages are concerned except Fitters and Turners none of the workers in the other occupations touch the one rupee mark. The lowest paid occupation is that of female coolies whose average basic wage is 0-6-4. Male coolies get 0-8-3 as their daily basic wage. The highest average daily earning is of Turners who earn 1-10-6 per day, Fitters being the next in order of importance, earning 1-6-8 per day. A male cooly earns 0-13-6 per day and a female cooly 0-12-3.

Dearness allowance.—Dearness allowance is paid at Rs. 10 p.m. to permanent workers and at 20 per cent. of wages to temporary workers.

No bonus is paid.

Housing.—Most of the workers in this factory live in their own houses in the neighbouring villages. The management has not therefore made any provision for the housing of the workers although some members of the supervisory staff have been housed by the company. It is understood that a scheme for building quarters for the workers is under the consideration of the management.

Welfare work.

The factory has a part-time doctor and two compounders in charge of a small dispensary. Medical aid is given to the workers and to their families free of charge. The incidence of malaria among the workers in this factory seems to be very high and it is reported that at the time of the enquiry, nearly 50 per cent. of the workers, were suffering from this disease. The authorities are also finding much difficulty in getting the requisite supply of medicines for the dispensary. Women on maternity leave are attended to by the company's medical staff in their own homes.

The mill maintains a school for adult workers at its own expense. Adult instruction classes have also been started for women workers. The company runs a co-operative store. About 1|3 of the workers in the factory have become members of the society by subscribing to shares of Rs. 5 each. All food grains except ragi and wheat are sold in the store and the cost of purchases made is deducted from wages.

There is a canteen for serving light refreshments where tea and eatables are sold at cost price. The workers in this factory are also given tea in their own departments during working hours free of charge.

Arrangements have been made for indoor and outdoor recreational facilities of the workers. Sometimes, dramas are staged in the mill premises for the workers and admission to these is free.

This factory does not appear to have made any provision for safeguarding the future of its operatives.

A Trade Union has recently been started by the workers in this factory with a membership of about 200. The Union is not recognised by the employers although it is a registered union.

CHAPTER IX.—MYSORE—Bhadravati.

Employment.

There is a paper mill at Bhadravati in the Shimoga district of Mysore State. The number of persons employed is about 800. More than 90 per cent. of the labour is local while the remaining comes from surrounding areas. Except for labour employed on constructional work the rest of it is recruited directly by the management by selecting workers at the gate. On recruitment a worker is given a temporary card for a period of six months. There is, however, no distinction made in regard to privileges such as leave, etc., as between permanent and temporary workers. The mill also registers certain workers as substitutes and gives them 'substitute' cards. These card holders are given priority when new recruits have to be appointed. Contract labour is not employed in the departments of the factory but only on building-construction, coal breaking, etc. The management does not exercise any control over labour employed by contractors.

Working Conditions, Hours of Work and Shifts.

This is a modern factory which is well lighted and ventilated. Being a continuous process factory there are three shifts in it with a general shift from 8 a.m. to 6 p.m.

There is a system of weekly change over of shifts in this factory.

Wages and Earnings.

Most of the employees of this factory are daily-rated. The minimum basic wage is about As. 5 for adults and As. 4 for children.

A wage census was conducted in this factory for the month of January 1944. All the workers in the minor occupations were covered, while in the major occupations a sample of 50 per cent. was adopted. The following table summarises the results of the enquiry for selected important occupations.

TABLE XII.

Table showing wages and earnings in selected occupations in January 1944.

Industry..... Paper.

Centre..... Mysore State (Bhadravati).

Name of Concern.....Mysore Paper Mills, Ltd., Bhadravati.

Occupations.	Shift or Time.	Sex.	Piece	No of hours of work per shift.	No. of workers.	No of samples taken.	Average daily basic wages earned.	Average daily gross earnings including overtime, allowances and bonuses.	Average daily net earnings including overtime, allowances and bonuses.	Average net earnings in the wage period.	Average Basic wages earned in the wage period by samples with full attendance.	Average net earnings in the wage period of samples with full attendance.	No. of working days in the wage period.
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.			
Carpenters ..		Male	T	8	6	6	1 6 9	1 10 1	1 10 1	35 13 6	..	..	26
Fitters		,,	,,	,,	30	30	1 3 1	1 7 4	1 7 4	34 14 6	..	..	,,
Turners ..		,,	,,	,,	3	3	1 1 10	1 5 0	1 5 0	28 2 4	..	..	,,
Press Boys ..		,,	,,	,,	7	7	0 12 5	1 1 8	1 1 8	5 13 9	..	..	,,
Transporters ..		,,	,,	,,	28	28	0 9 5	0 12 7	0 12 7	6 9 2	..	..	,,
Helpers		,,	,,	,,	424	214	0 9 1	0 12 9	0 12 9	18 11 0	..	..	,,
		Fem.	,,	,,	20	20	0 5 11	0 8 11	0 8 11	12 6 8	..	..	,,
Sorters		Fem.	,,	,,	57	14	0 6 4	0 9 8	0 9 8	13 0 6	..	..	,,
		Chd.	,,	,,	8	6	0 4 9	0 7 11	0 7 11	10 5 6	..	..	,,
Ash Removers ..		Male	,,	,,	9	9	0 7 2	0 10 3	0 10 3	17 9 1	..	..	,,
Carriers ..		,,	,,	,,	13	13	0 9 1	0 13 3	0 13 3	16 5 6	..	..	,,
					605	350							

It will be seen that all the workers covered were on time-rates of pay. Skilled workers like Turners, Fitters and Carpenters get an average daily wage varying from Rs. 1-1-10 to 1-6-0, the variation in the average daily earning being from Rs. 1-5-0 to 1-10-0. The occupation in which the largest number of workers are engaged is of Helpers. The average basic wage of Helpers is Rs. 0-9-1 per day and their average earning Re. 0-12-9. Female workers who work mostly as Sorters have a basic daily wage of As. 6-4 with an average daily earning of As. 0-9-8. Children have a basic wage of about Re. 0-4 9 per day with an average daily earning of Re. 0-7-11.

Since the outbreak of the War there have been no changes in the basic rates of wages nor in the hours of work either.* The wage period is a calendar month and wages are paid within 8 to 9 days of their becoming due.

Dearness allowance was being originally paid at the rate of Re. 1 per month but has since been increased to Rs. 7|8|- per month in the case of those earning up to Rs. 80 and Rs. 8 for those earning up to Rs. 100 per month.

It is understood that the operatives in this factory are given two religious holidays with pay per year and also two weeks' leave with pay on completion of one year's service. Such leave can be accumulated upto a total of six weeks.

A bonus was paid in this factory at the rate of one-twelfth of the earnings of the workers to all those who had put in not less than 75 days' attendance during the year.

Housing.

About 40 per cent. of the employees of the factory have been housed by the management in an area known as the Paper Town. There are different types of houses built. They are pucca structures with tile roofing and good flooring. They are extremely well lighted and ventilated. The rent charged varies from Re. 1 to Rs. 4 according to the type of accommodation provided. Most of these tenements contain two to three rooms each with a separate bath room and a latrine. In addition to the housing supplied by the management there are about 200 huts erected by the workers themselves. It is understood that there is a keen demand for more housing on the part of the operatives.

So far as the houses supplied by the employers are concerned, on the whole the conditions can be regarded as very satisfactory.

Welfare Activities.

The medical officers of the Bhadravati Iron Works look after the medical needs of the employees in the Paper Mill. A Lady Assistant Surgeon also visits the homes of the workers and arrangements are made for prenatal and post-natal examinations. The management of the factory makes a contribution for the maintenance of certain schools. The Labour Association also conducts an adult literary class and maintains a reading room and library.

There is a system of Provident Fund in this factory for all permanent workers having a minimum of three years' service. The contribution of both parties is anna 1 per rupee per month. About 300 workers in this factory are

*It is understood that since the date of the enquiry there have been slight increases granted both in the basic wages and in the Dearness Allowance.

members of the Fund. Those who are not members of the Fund are paid retirement bonus at the rate of half a month's salary or wages for each year of service. The minimum service required for qualifying for the bonus is 15 years and the maximum bonus payable is equal to 15 months' wages.

There is a well organised Association of the workers employed in this factory. In addition to representing the workers' grievances to the management, it also conducts certain welfare activities such as a canteen where cooked food etc., are served.

PART III.

CHAPTER X.—Summary and Conclusions.

The survey contained in this Report deals with 15 units out of the 22 paper mills in the country in 1943-44 employing 15,425 persons or 82.8 per cent. of the total employed in the industry. All the important centres of the industry including one in an Indian State have been represented in the sample selected for the survey.

In spite of the fact that paper making has been one of the oldest industries of the country, the industry as a factory industry is of comparatively recent origin and growth. It is no doubt true that the first paper mill in the country was started as early as in the year 1870, but right up to 1921 the industry made but little progress. Since the grant of protection to the industry in 1925 till the out-break of the war, its progress was considerable. The War, however, seems to have given the industry great opportunity for expansion, owing to the cessation of imports from other countries. Thus it is seen that, while in 1939 there were only 16 paper mills with a production of about 70,000 tons employing about 12,500 persons, during 1943-44 the number of mills rose to 22, production to a lakh of tons and workers to about 19,000. The authorised capital of the industry rose from Rs. 115 lakhs in 1931 to about Rs. 279 lakhs in 1944. The production of the industry has been completely controlled by Government during the war period. But as stated in Chapter I, war time regulations and controls have not affected it adversely from the financial point of view because, in 1942 the profits of the industry amounted to about a crore of rupees and those of eight units for which comparable figures are available rose from about 30 lakhs in 1940 to 86 lakhs in 1942.*

The largest units in the industry continued to be located in Bengal but, while at one time these units controlled about 80 per cent. of the total Indian production, they no longer hold the same unique position although, a considerable proportion of India's production comes from the units in Bengal.

There is not much employment of women and children in the industry. The former account for about 8 per cent. of the total labour force and as regards children, there were only 43 in the units surveyed. A fairly large number of women are employed in the factory at Poona.

Recruitment is made mostly directly by the factory managements. In the unit in Bihar, however, workers are recruited through a Recruitment Board and in Orissa through a paid agent. In the units in Bengal, the labour required for loading and unloading etc. is employed through contractors but the managements do not exercise much control over the conditions of work and wages of such labour. In the other centres no contract labour is in evidence. In the unit at Orissa, it was found that a large number of workers

*Review of Trade, 1941-42, page 75.

were substitute workers. A rather striking feature of the labour employed in the Deccan Paper Mills, Poona, is that nearly 200 workers belong to the criminal tribes settlement.

As will be seen from the wage tables in the various sections of the Report, a very large proportion of the labour force in the industry consists of coolies and carriers. That being so, it is not surprising that labour turnover among these should be high because such workers are not permanent workers in the industry and are willing to leave as soon as they can find more remunerative jobs outside, which have been available in plenty recently owing to the conditions created by the war. It has also been reported from all the important centres of the industry that the very large incidence of malaria has been no less responsible for the workers leaving their jobs and returning to their villages.

Absenteeism varies from 6 to 21 per cent. In the concerns in Bengal, it is reported that absenteeism is particularly high although there are no well authenticated statistics for establishing this fact.

Especially in factories which use Sabai grass or cotton rags as raw material, the appearance of the factories is naturally none too clean since all this material is dumped either in sections of the departments or in the compounds. However, on the whole, working conditions inside the departments may be regarded as satisfactory and in the Titagarh Mills at Bhadravati they are excellent. There is adequate provision of good and clean drinking water and also of sanitary arrangements.

Being continuous-process factories, all the units work three continuous shifts and in addition also one or two general shifts. For the continuous-process shifts, the hours of work vary from 7-1/2 to 8 each, while in the general shift, the working hours are 9 or 10 with a spread-over of 10 to 13 hours. Only one concern in Bombay reported that it had a relay system with a spread-over of 12 hours.

Sunday is generally a closed day for workers in the general shifts, while the workers in the continuous shifts get 32 hours rest after 8 to 12 days' work.

Except in one or two units, no rest shelters are provided for the workers.

Only three units reported that they had Standing Orders for regulating the relations between themselves and their employees. Three out of 4 units in Bengal, the one at Dalmianagar, the one at Poona and the one at Jagadhri reported that they had appointed Labour Officers to look into the grievances of the work-people.

Except in the case of the unit at Bhadravati, a Wage Census covering all the workers in the other units was conducted in selected occupations and the results of the census have been given in the appropriate sections of the report. It is unnecessary to comment on the figures except to point out that in spite of the improved position of the industry during the period of the War, the workers do not seem to have benefitted materially. The wage level in this industry is none too high and is slightly lower than in other organised industries in the country. The frequency tables of wages and earnings in Appendix III(a) and (b) show that 29 per cent. of the workers in the units surveyed get a daily basic wage of less than as. 8, 11.1 per cent. of whom receive less than as. 6 per day. About fifteen per cent. get a daily basic wage between as. 8 to as. 10 and 23 per cent. 10 to 12 as., 12.4 per cent. between annas 12 and as. 14 and the rest more than annas 14. As regards net earnings, the percentage of those earning below as. 12 is 16, of those earning between 12 to 14 as. is 19.5, of those getting between 14 to Re. 1, Re. 1 to Rs. 1-2-0 and Rs. 1-2-0 to Rs. 1-4-0 being 18.5, 10.3 and 9.7 respectively.

Female workers in some units get as low a wage as as. 4 per day and one unit had an ingenious system of paying only a nominal wage of one or two annas and making up the wage to annas 8 by giving the standard rate of dearness allowance prevailing in that unit. The bulk of the workers in the industry are time-rated and only those in the Finishing Department are on piece rates.

The wage period is generally a month and wages are paid within a week or 10 days of their becoming due. There is no uniformity whatever in the payment of dearness allowance as between unit and unit and, on the whole, the scale of dearness allowance in this industry is very much lower than that prevailing in other industries. Only two of the units have linked up the payment of dearness allowance with the cost of living index number. The Poona unit, however, pays only 50 per cent. of the dearness allowance paid by the Millowners' Association, Bombay. Three units in Bengal pay a dearness allowance of 0-1-6 per rupee plus Rs. 5 to Rs. 8 per month, while the fourth unit pays 15 per cent. of the wages by way of dearness allowance. The highest rate of dearness allowance appears to be paid at Sahranpur where a cooly getting about as. 8 per day earns as much as Rs. 1-4-0 per day. There is also in some units the system of paying dearness allowance at a flat rate which varies from Rs. 7-8-0 to Rs. 12 per month in the case of the lower-paid employees.

Except for the units in Bengal and the Paper mill in Rajahmundry, the others have been paying a profit bonus equivalent to one or two months' wages. The Bengal units sell food grains at concession rates in addition to paying a dearness allowance in cash. The value of this concession, however, works out to slightly over a rupee per week.

The housing conditions of workers employed in the industry present a study in contrast. While some units have made no provision whatever for the housing of their workers, two have provided housing for 70 to 75 per cent. of their employees. There are large variations also in the types of housing provided. At one end we find well ventilated and lighted two-room tenements with electric lights and provided with all convenience regarding water, sanitation, etc. and at the other we notice the barrack types of quarters as in Bengal. There are variations also in regard to the rent charged. In two centres, houses are given to workers free of rent. In some, the rent charged is as low as as. 4 and in some as high as Rs. 4 per month. Speaking generally, workers in this industry live in single-room tenements. The following table summarises the position in regard to the provision for housing made by the units in the different centres of the industry.

TABLE XIII.

Centre.	No. of units surveyed.	No. of workers at the time of enquiry.	housed.
Bengal..	4	7,084	33·1
Bihar	1	2,000	31·0
Bombay	5	1,83	18·0
Punjab	1	1,12	75·0
United Provinces	1	700	70·0
Madras—Rajahmundry	1	603	Nil
Orissa	1	1,276	76·3%
Mysore State	1	800	40·0
	15	15,425	38·2 Weighted average

The industry, as a whole, has not entirely neglected welfare work for its operatives. All the units have made arrangements for medical relief by establishing dispensaries which are generally in charge of qualified doctors, while two have separate hospitals for their employees. Recreational facilities have, however, been supplied to a limited extent although some units have made adequate provisions for indoor as well as outdoor recreation. A striking feature is the successful working of workers' co-operative societies in the units in Bengal.

The units in Bombay have not made any provision for the future of their employees nor have those in Rajahmundry and Orissa. The unit at Poona, however, grants pension and gratuity at the discretion of the management. In the Bihar mill although a Provident Fund scheme exists, as it is optional only 4 per cent. of the workers are members of the fund. In Bengal, there is a Provident Fund scheme in one mill and pensions schemes in others. In Mysore State, there is a Provident Fund scheme for workers getting as. 12 and above, while for others it is optional. Those who are not members of the Fund, however, get a retiring gratuity at half a month's wages for each year of approved service. In the Punjab, no provision has so far been made for safeguarding the future of the workers but the mill is building up a Welfare Trust with an annual contribution and the amount at its credit is about Rs. 80,000. It is reported that welfare schemes will be undertaken after the trust has accumulated a lakh of rupees.

Trade Unionism in the industry is extremely weak. The one exception to this probably is the labour association in the factory at Bhadravati in Mysore State. This association has been recognized by the employers and unlike most of the unions in the country, is conducting some welfare activities such as a canteen, literacy classes, etc.

It is difficult to foresee as to what will be the future of the industry because prior to the war when Indian mills were producing about 70,000 tons of paper only, already there was internal competition and the industry was in a most depressed condition. Those in charge of the industry, however, as can be seen from the recent speech of the Chairman of the Indian Paper Makers' Association, appear to be optimistic about its future.*

It is to be hoped that, with the continued prosperity of the industry, there will be an organised effort on the part of the Paper Manufacturers to bring about an all-round improvement in the conditions of work and wages of those who depend on this industry for their livelihood.

S. R. DESHPANDE,
Member,
Labour Investigation Committee.

SIMLA,
3*rd August*, 1945.

* Speech by Mr. Mellor, Chairman, Indian Paper Makers' Association. Reproduced in COMMERCE, 17th March 1945, page 310.

APPENDIX I.

A descriptive note on the processes involved in the Manufacture of Paper.

(a) *Sabai Grass and Rags**.—The grass is brought to the factory from forests abundantly. It is cleaned both by hand and machinery to remove the dust adhering to it and also the foreign matters. Cleaned grass is boiled under pressure in iron vessels with caustic soda solution for few hours. After boiling the boiled mass is transferred to another vessel where it is washed with water. During this washing the boiled stuff is also disintegrated by means of a pump. When the stuff has been properly washed and disintegrated it is pumped up to a cement tower where bleach liquor is added to it. The fibres are now bleached white and known as bleached grass pulp.

Rag Pulp.—Wastes from hosiery mills and tailor's shops are cleaned by passing them through a rotating drum covered with wire netting. The clean Rags are cut in a machine and cut Rags are boiled in a revolving iron vessel called 'Digester'. Caustic soda is also used for this cooking process. Boiled rags are then washed and bleached in receptacles called 'Breakers' where a revolving roll fitted with knives tear out the rags into fibres. After washing and bleaching the fibres form the Rag Pulp.

Discarded rags are also used in good quantity. The process of turning these filthy and dirty materials into pulp is essentially the same as detailed above. Only more elaborate treatment is required to deal with them.

Beating.—Both Grass Pulp and Rag Pulp obtained from previous operations are mixed in vessels. There are two sets of knives adjusted in such a way that the pulp mixture while passing between them is cut into very small pieces and the bundles of fibres are separated. Here at this stage various chemicals such as Rosin, Alum, Clay, Silicate etc., are mixed with the pulp. If coloured paper is required suitable dyes are added to the pulp.

Paper Machine.—The treated pulp is diluted with water and the diluted mixture is allowed to flow uniformly over a moving wire screening. Now, the water is sucked through the screen, leaving a film of pulp which is next pressed between series of rollers so that more water is taken out of the film. A wet sheet of paper is thus formed. The sheet then passes over a number of rotating drums filled with steam, until it is dried. When the dried sheet of paper travels between heavy iron rollers, one above the other, its rough surface is polished and we get the finished paper, wound on a reel. Thus a sheet of paper about 10 ft. wide is produced at the rate of a mile in 15 minutes.

The long web is then cut into required size in a separate machine. Men in the Finishing Department sort out the good and perfect sheets and pack them in reams which are despatched to their destination.

(b) *Bamboo*†.—Bamboo is brought on small trollies to the crusher where it is crushed as well as broken. Before going to the crusher, each trolly containing bamboo is weighed to calculate the yield of the pulp, etc. Bamboo chips are then carried by a belt carrier to the storage. From storage the chips are taken in big cylindrical vessels called digesters where they are boiled in two stages, the pre-digestion and the Lignin digestion. In pre-digestion the unused alkali of the black liquor obtained after lignin digestion is employed, while in lignin digestion fresh alkali is used. The liquor obtained after lignin digestion is black and hence it is technically called black liquor. After the completion of boiling the chips are converted into pulp which with black liquor

is taken from the digester into another vessel. This vessel called diffuser has a perforated bottom which allows the black liquor to flow out of the vessel and to be used again in Pre-digestion. To wash the pulp free from black liquor, fresh water is sprayed on the pulp in the diffuser and it is then taken in a storage.

Bamboo knots are not effected by digestion and they remain as they were. To remove these knots, the pulp with water is pumped and falls on the inside of a rotating drum having perforations. These perforations allow the pulp to flow to the other side while the knots are held and separated. The pulp then flows into small channels called sand traps. In Paper factory water is the only carrier of pulp which flows with it from place to place. As the pulp flows, heavier particles of sand are deposited on the bottom of the channel while only the lighter fibres of pulp flow with the water. The pulp is then passed through another screen of the type in which knots were removed. It has finer perforations and separates the thick fibres of the pulp from the finer ones. The pulp after being screened is ready for storage. As it is mixed with a lot of water, it is separated from it before storing.

The plant where this is accomplished is called thickener. At this stage the colour of the pulp is not white and so it cannot be used as it is in white or light coloured papers. To make it white it is treated with bleached liquor and then finally washed.

The pulp before being used for making into paper is made softer by the mechanical action in a beater. At this stage are also added to the pulp such things as loading material to make the paper heavier, sizing material to make the paper non-absorbent of ink, and colours in case of coloured papers. Beater pulp is taken in a chest from the various beaters and it is thoroughly mixed there. The pulp is now ready for making into paper.

The pulp from the chest flowing through pipes comes in a box like thing from which it flows on an endless wire sieve called long wire. It is here that the pulp is formed into a uniform sheet of paper. The long wire is always having a uniform jerky motion which help in the uniform spreading of the pulp and the draining of water out of it. The layer of the pulp formed on the wire is pressed between rolls to squeeze out the water mechanically. At this stage the paper is not very strong and so it is supported by woollen felts throughout its journey between the rolls. The paper then passes over steam heated drums where its moisture is further removed and the paper is dried. The paper then passes between rolls having smooth surfaces and its surface is also smoothed. This is technically called calendering. The paper is then finally reeled. The reel of paper is then cut into sheets of required sizes on the cross cutter. It is then sorted there by removing defective sheets and finally packed ready for the market.†

† These notes are based on the information supplied by the Shree Gopal Paper Mills, Jagadhri, Punjab, and the Rohtas Industries Ltd., Bihar.

APPENDIX II.

ORIENT PAPER MILLS LIMITED : BRAJRAJNAGAR.

Dates on which each worker takes holiday during March 1945.

—	1st Shift (6 a.m. to 2 p.m.)	2nd Shift (2 p.m. to 10 p.m.)	3rd Shift (10 p.m. to 6 a.m.)
Group 'A'—workers changing shifts twice a week, i.e., on Sunday and Thursday;—			
1. Bamboo Crusher	28-2-45—2 p.m. to 1-3-45—10 p.m.	3-3-45—2 p.m. to 4-3-45—10. p.m.	7-3-45—2 p.m. to 8-3-45—10 p.m.
2. Digester House			
3. Screening & Bleaching ..			
4. Chlorine House			
5. Soda Recovery	10-3-45—2 p.m. to 11-3-45—10 p.m.	14-3-45—2 p. m. to 15-3-45—10 p.m.	17-3-45—2 p.m. to 18-3-45—10 p.m.
6. Sizing Plant			
7. Turbine & Boiler	21-3-35—2 p.m. to 22-3-45—10 p.m.	24-3-45—2 p.m. to 25-3-45—10 p. m.	28-3-45—2 p.m. to 29-3-45—10 p.m.
8. Coal Crusher			
9. River Pump	31-3-45—2 p.m. to 1-4-45—10 p.m.		
10. Laboratory			
11. Kollergang			
12. Rag Plant			
Group 'B'—workers changing shifts once a week, i.e., on Sunday—			
1. Beater House	10-3-45—2 p. m. to 11-3-45—10 p.m.	17-3-45—2 p.m. to 18-3-45—10 p. m.	3-3-45—2 p.m. to 4-3-45—10 p.m. to 24-3-45—2 p. m. to 25-3-45—10 p.m.
2. Pulper			
3. Paper Machine			
4. Card-board Machine ..	31-3-45—2 p.m. to 1-4-45—10 p.m.		
5. Cardboard Beater			
6. Transporting Pulp to Beater			
7. Square Cutter			
Group 'C' General shift workers :—			
1. Workshop Engineering ..	Every Sunday, *i.e.*, 4-3-45. 11-3-45, 18-3-45 and 27-3-45.		
2. Workshop Erection ..			
3. Engineering Maintenance ..			
4. Electric workshop			
5. Building maintenance ..			
6. Yard cleaning			
7. Finishing			

APPENDIX III(a).
PAPER INDUSTRY.

Table showing the frequency of basic wages per day of workers employed in the Paper Industry at various centres covered by the Wage Census.

Provinces.	Punjab.	United Provinces.	Bihar.	Orissa.	Madras.	Mysore.	Bombay.		Bombay.	Bengal.		Bengal.	Grand Total.
Centres.	Jagadhri.	Saharanpur.	Dalmianagar.	Brajrajnagar	Rajahmundry	Bhadravati.	Bombay.	Poona.	Ahmedabad.	All Units.	Rampur.	Titagarh.	Naihati.	All Units.	
No. of Units.	1	1	1	1	1	1	2	1	1	5	1	2	1	4	13
Income groups.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.	No. of workers. / % to total.
Under As. 4/-	.. ..	.. ..	.. ..	28 2·49	.. ..	.. ..	39 7·98	.. ..	59 3·8	.. ..	.. ..	104 2·2	.. ..	.. ..	87 ·70
As. 4 & below As. 8	162 29·62	.. ..	749 88·72	606 58·29	60 11·29	31 3·72	.. ..	292 39·59	21 4·35	313 19·9	42 3·37	104 2·2	70 5·41	146 2·1	1,387 10·89
As. 8 & below As. 8	219 40·04	199 48·53	97 11·28	81 7·18	209 34·71	164 19·68	65 19·33	69 9·29	142 28·73	276 17·5	162 13·05	112 2·6	67 5·18	344 5·0	2,240 17·60
As. 8 & below As. 10	71 12·98	45 10·98	12 1·72	51 4·46	171 28·45	246 29·54	160 31·25	98 13·19	177 35·83	389 24·2	328 42·47	278 6·4	97 7·52	893 13·0	1,804 14·90
As. 10 & below As. 12	9 1·64	24 5·85	6 ·86	46 4·02	32 5·31	205 24·37	54 7·14	83 11·17	42 8·66	149 9·3	171 15·70	2,172 50·1	37 2·87	2,429 35·7	2,951 22·66
As. 12 & below As. 14	9 1·64	40 9·76	3 ·34	26 4·99	50 8·30	36 4·32	40 11·91	22 2·96	36 7·38	98 6·2	146 11·76	405 9·6	132 10·23	781 11·5	1,284 12·40
As. 14 & below Re. 1	4 ·73	5 1·22	5 ·91	57 4·98	14 2·32	74 8·88	44 13·09	17 2·28	10 2·12	71 4·3	62 4·98	244 5·6	97 7·52	474 6·9	606 5·10
Re. 1 & below Re. 1/2	3 ·55	5 1·22	9 1·03	37 3·24	14 2·32	20 2·40	3 ·89	6 ·81	12 2·42	21 1·3	30 2·41	183 4·2	39 3·03	273 4·0	309 2·60
Re. 1/2 & below Re. 1/4	3 ·55	7 1·71	5 ·86	24 2·08	7 1·16	14 1·68	3 ·89	5 ·68	17 3·50	23 1·5	31 2·49	187 4·3	37 2·87	278 4·0	353 2·96
Re. 1/4 & below Re. 1/8	12 2·19	10 2·44	7 ·80	19 1·64	8 1·32	6 ·72	4 1·19	7 ·94	1 ·20	12 0·8	16 1·28	212 4·8	29 2·25	269 3·9	345 2·90
Re. 1/8 & below Re. 1/16	7 1·28	11 2·68	6 ·86	14 1·21	2 ·49	13 1·57	4 1·19	8 1·07	5 1·01	17 1·1	9 ·72	70 1·6	20 1·55	116 1·6	180 1·55
Re. 1/16 & below Re. 1/16	6 1·1	12 2·92	7 ·80	8 ·70	2 ·23	3 ·36	1 ·26	11 1·48	1 ·20	12 0·8	7 ·60	184 4·2	24 1·86	227 3·1	284 2·30
Re. 1/16 & below Re. 1/32	11 2·02	.. ..	1 ·11	10 ·86	3 ·49	2 ·24	1 ·26	11 1·48	1 ·20	12 0·8	7 ·60	49 1·1	9 ·72	77 1·1	99 ·80
Re. 1/32 & below Re. 1/64	18 3·29	.. ..	.. ..	10 ·86	3 ·49	2 ·24	1 ·26	7 ·94	3 ·57	11 0·7	8 ·70	35 ·8	5 ·39	59 ·8	77 ·62
Re. 1/64 & below Re. 2/-	7 1·28	2 ·49	.. ..	5 ·43	2 ·32	2 ·24	4 1·19	4 ·54	1 ·20	9 0·6	1 ·10	19 ·4	3 ·23	32 ·4	43 ·35
Re. 2 & below Re. 2/8	.. ..	.. ..	.. ..	.. ..	5 ·82	.. ..	2 ·59	10 1·33	4 1·04	17 1·1	.. ..	49 1·1	4 ·31	70 1·0	87 ·69
Re. 2/8 & below Re. 2/4	1 ·18	.. ..	1 ·11	.. ..	.. ..	.. ..	2 ·59	2 ·27	.. ..	2 0·1	.. ..	2 ·05	.. ..	2 ·03	5 ·04
Re. 2/4 & below Re. 2/8	.. ..	.. ..	1 ·11	5 ·43	1 ·16	.. ..	1 ·26	3 ·40	1 ·26	6 0·4	.. ..	9 ·2	1 ·08	16 ·2	27 ·21
Re. 2/8 & below Re. 2/8	.. ..	.. ..	.. ..	2 ·17	.. ..	.. ..	.. ..	4 ·54	.. ..	4 0·3	.. ..	9 ·2	.. ..	13 ·2	17 ·13
Re. 2/8 & above	.. ..	.. ..	.. ..	11 ·95	2 ·33	4 1·19	20 2·99	1 ·26	34 2·3	.. ..	22 1·7	.. ..	1 ·08	23 ·3	76 ·61
Total	247 100	458 100	844 100	1,161 100	602 100	335 100	669 100	384 100	1,479 100	1,701 100	1,216 100	4,346 100	961 100	8,224 100	12,450 100

† Includes wage rate of 37 annas/day.

APPENDIX III(b).
PAPER INDUSTRY.

Table showing the frequency of net earnings per day of workers employed in the Paper Industry at various centres by the Wage Census.

Provinces.	Punjab.	United Provinces.	Bihar.	Orissa.	Madras.	Mysore.	Bombay.			Bombay.	Bengal.				Bengal.	All Centres.
Centres.	Jagadhri.	Saharanpur.	Dalmianagar.	Brajrajnagar.	Rajahmundry.	Bhadravati	Bombay.	Poona.	Ahmedabad.	All Units.	Raniganj.		Titagarh.	Naihati.	All Units.	
No. of Units.	1	1	1	1	1	1	3		1	1	1		2	1		
Income groups.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.	No. of work-ers.	% to total.
Under As. 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
As. 4 & below As. 6	..	..	..	..	..	..	2	·31	..	..	1	·13	..	..	1	0·1	29	2·35	..	..	..	..	29	0·4	32	0·3
As. 6 & below As. 8	..	..	..	..	..	2	·18	5	·83	10	1·19	23	0·83	18	2·43	..	..	41	2·6	151	12·15	..	..	1	·07	152	2·3	210	1·6
As. 8 & below As. 10	1	·18	..	..	..	26	2·34	8	1·33	156	16·39	25	0·85	52	7·01	..	..	75	4·6	74	5·95	99	235	1	·07	174	2·6	429	3·3
As. 10 & below As. 12	291	51·39	2	·49	..	292	26·39	14	2·32	74	8·91	21	0·25	256	34·59	..	..	277	17·0	220	17·70	124	2·94	52	4·02	396	5·9	1,235	10·5
As. 12 & below As. 14	168	29·39	..	..	763	85·24	375	29·13	232	12·63	397	35·78	44	13·49	83	11·20	..	..	127	8·1	209	22·07	215	5·04	45	3·66	553	8·2	2,459	19·8
As. 14 & below Re. 1	11	2·02	..	..	91	9·99	69	6·13	146	24·29	119	14·34	68	20·58	71	9·67	..	..	139	8·8	161	15·25	1,316	35·96	108	8·29	1,786	26·5	2,331	18·5
Re. 1 & below Re. 1/2	8	1·42	142	34·63	14	1·6	96	8·15	98	6·48	44	5·30	33	9·72	79	10·65	21	4·25	133	8·5	39	4·75	528	12·70	390	29·29	897	13·3	1,313	10·3
Re. 1/2 & below Re. 1/4	6	1·10	54	13·17	4	·46	26	2·24	29	4·82	82	7·68	61	18·06	42	5·66	141	28·54	244	15·5	56	6·67	400	9·49	352	27·22	810	12·0	1,235	9·7
Re. 1/4 & below Re. 1/8	5	·92	45	10·98	6	·68	22	1·90	23	3·82	15	1·81	21	6·23	20	2·69	177	35·83	218	13·9	57	2·98	302	7·16	139	10·75	478	7·1	812	6·4
Re. 1/8 & below R. 1/16	6	1·42	74	18·05	3	·35	24	2·09	26	4·32	25	3·01	9	2·68	16	2·15	41	8·29	68	4·2	24	1·93	188	4·31	68	5·25	280	4·1	506	3·9
Re. 1/16 & below Re. 1/32	6	1·18	39	9·52	5	1·03	27	2·28	14	2·32	12	1·45	13	3·87	6	·81	36	7·28	55	3·5	25	2·01	234	5·55	45	3·50	304	4·5	468	3·7
Re. 1/32 & below Re. 1/64	5	1·77	6	1·46	5	·57	23	2·05	9	1·49	17	2·03	1	·28	5	·67	11	2·23	17	1·1	23	1·83	118	2·82	48	3·55	187	2·8	273	2·2
Re. 1/64 & below Re. 1/128	7	1·28	6	1·46	2	·22	19	1·61	10	1·66	6	·72	3	·89	6	·81	20	4·01	29	1·8	13	1·03	90	2·18	23	1·80	131	1·9	210	1·6
Re. 1/128 & below Re. 2	5	1·10	2	·49	6	·68	18	1·64	5	·87	4	·49	1	·28	3	·41	11	2·23	15	0·9	16	1·30	61	1·38	29	1·93	105	1·6	161	1·3
Re. 2 & below Re. 2/5	3	·60	5	1·22	6	·68	10	·94	7	1·16	3	·38	1	·28	5	·67	15	3·04	22	1·4	11	0·89	95	2·19	15	1·10	111	1·6	161	1·3
Re. 2/5 & below Re. 2/8	6	1·18	6	1·46	3	·35	11	1·03	1	·16	..	..	..	..	12	1·75	1	·20	14	0·8	10	0·80	61	1·44	26	1·84	97	1·3	131	1·0
Re. 2/8 & below Re. 2/16	17	3·02	9	2·19	4	·40	19	1·85	1	·16	4	·49	2	·58	11	1·48	6	1·18	19	1·2	16	0·80	38	·90	10	·77	58	0·8	131	1·0
Re. 2/16 & below Re. 2/32	9	1·70	13	3·17	4	·46	10	·94	1	·16	..	..	2	·58	8	1·08	1	·20	11	0·7	11	0·89	32	·64	8	·61	51	0·8	89	0·6
Re. 2/32 & above	1	·18	7	1·71	2	·23	149	13·90	9	1·49	2	·23	10	2·91	47	6·33	12	2·32	69	4·4	11	0·89	113	2·59	37	2·86	160	2·5	308	2·1
Total ..	567	100	410	100	872	100	1,046	100	914	100	830	100	334	100	742	100	434	100	1,072	100	1,233	100	4,317	100	1,293	100	6,733	100	12,600*	100

* The difference in the number of workers entered by the census given in the basic wage and net earnings tables is due to the fact that absentees have been excluded from the latter.

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LABOUR INVESTIGATION COMMITTEE

GOVERNMENT OF INDIA

REPORT

ON

AN ENQUIRY INTO CONDITIONS OF LABOUR IN PLANTATIONS IN INDIA

Cx.p.5

BY

D. V. REGE, I. C. S.

Chairman, Labour Investigation Committee.

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PREFACE.

The Tripartite Labour Conference at its meeting in September 1943 recommended the setting up of a machinery to investigate questions of wages and earnings, employment and housing, and social conditions generally, with a view to provide adequate materials on which to plan a policy of social security for labour. In pursuance of that resolution, the labour Investigation Committee was appointed by the Government of India by Resolution No. L.4012, dated the 12th February 1944 to carry out the investigations. The Committee was instructed to extend its investigations generally to all industrial and semi-industrial labour covered by the Royal Commission on Labour in their Report, with the addition of certain other categories. The Committee was asked by the Government of India to decide in each case the most suitable manner of conducting the enquiry. The Government, however, considered that the method of enquiry should not merely consist of sending out questionnaires to Government agencies and Employers' and Workers' Associations, but should also comprise specific enquiries in individual concerns based on representative sampling.

2. In India, in spite of the quite comprehensive enquiries made by the Royal Commission on Labour and a few Committees appointed by the Provincial Governments, there have remained large lacunae in regard to information on labour conditions in several industries. In particular, broadly speaking, the method of direct enquiry on the spot has not been adopted on a sufficiently wide scale so as to cover the entire industrial structure. Moreover, certain industries, like cotton textiles and coal mining, have received greater attention than others, and even as regards these industries, comprehensive information on an all-India basis has not been available. With a view to making up this deficiency as well as to bringing the available information up to date, the Committee decided that *ad hoc* surveys should be carried out in various industries so as to secure a complete picture of labour conditions prevailing in each : The following industries were selected for the purpose :—

A. *Mining.* (1) Coal. (2) Manganese. (3) Gold. (4) Mica. (5) Iron Ore. (6) Salt.

B. *Plantations.* (7) Tea. (8) Coffee. (9) Rubber.

C. *Factory industry.* (10) Cotton. (11) Jute. (12) Silk. (13) Woollen. (14) Mineral Oil. (15) Dockyard. (16) Engineering. (17) Cement. (18) Matches. (19) Paper. (20) Carpet weaving. (21) Coir matting. (22) Tanneries and Leather Goods Manufacture. (23) Potteries. (24) Printing Presses. (25) Glass. (26) Chemical and Pharmaceutical works. (27) Shellac. (28) Bidi-making, Cigar and Cigarette. (29) Mica Splitting. (30) Sugar. (31) Cotton Ginning and Baling. (32) Rice Mills.

D. *Transport.* (33) Transport Services (Tramways and Buses). (34) Non-gazetted Railway Staff.

E. *Other types of labour.* (35) Port Labour. (36) Municipal Labour. (37) Central P.W.D. (38) Rickshaw Pullers.

3. The main conception on which the *ad hoc* surveys have been based is that information should be collected on the spot by direct enquiry conducted with the help of the Committee's own staff and that this information should, as far as possible, conform to the sampling methods widely adopted in such work. Owing to great variations in the character of the different industries, however, there could not be a complete uniformity in regard to the methods which had to be adopted to suit the peculiarities of particular industries and centres. For instance, while there are only a few centres and units in certain industries such as potteries, mineral oil, gold, etc., in other industries, such as

textiles, engineering, transport services, plantations, tanneries, bidi-making, etc., a very large number of centres and units in different provinces (and even States) had to be covered. Moreover, some of the industries are modern industries of the large-scale type, wherein factory legislation applies more or less entirely, while others are indigenous handicrafts or small-scale industries, where factory legislation is either inapplicable or partially applicable. Thus, information has not been uniformly available in advance as regards the size, location and ownership of industrial units, such as is necessary before decisions for sampling are taken. Consequently the technique of representative sampling had to be modified and supplemented so as to obtain whatever information of a reliable character was available. As far as possible, however, in all industries important centres were covered. In each of these centres units were chosen on a sample basis, but it was possible in a few centres to cover all units. The final lists of centres of survey and individual establishments were made out in the light of the impressions gathered during the course of the preliminary tour and in consultation with local authorities. The guiding principle in the selection of centres of survey was to make the survey regionally representative so as to discover differences in the conditions of labour in the same industry in different parts of the country. The selection of individual concerns was generally based on considerations, in order of importance, of (a) size, (b) ownership (private or limited) and (c) whether subject to statutory regulation or not. In this connection, it may be stated that the Committee were greatly handicapped in sampling the units owing to the lack of complete information regarding location and number of units in the selected industries. Unfortunately there are no all-India employers' organisations in some of the organised industries, nor are the statistics maintained by the Central and Provincial Governments at all complete. Moreover, in certain unorganised industries, such as shellac, carpet-weaving, bidi-making, etc., owing to their very nature, no such information could have been readily available in advance. In certain cases, therefore, owing to these difficulties as well as transport difficulties and other exigencies, the sampling could not be fully adhered to. Nevertheless, the Committee have been anxious to gather in the maximum possible information in the limited time at their disposal and with a view to this, they have cast their net as wide as possible. The main instruments of *ad hoc* survey were the Questionnaires. These were of two kinds :—(a) the main *ad hoc* survey questionnaire on points likely to be common to all the industries surveyed, and (b) supplementary and special questionnaires in respect of certain industries, such as plantations, mines, railways, rickshaw pullers, port labour, municipal labour, glass, shellac, mica, etc. The main questionnaire was accompanied by a tabular form for entering wage data and this was used wherever possible. In the case of certain surveys, however, such as salt, paper, cotton, woollen and jute textiles, dockyards, silk, cement and gold mining, it was possible to conduct a wage survey on a sample basis. The chief method of collection of data was by personal investigation of industrial establishments, examination of their records and contact with labour in factories and homes. The information thus collected was supplemented and checked with replies to the Questionnaires received.

4. For the purpose of conducting enquiries, a sufficiently large field staff, consisting of 16 Supervisors and 45 Investigators, was appointed. Before the commencement of field work, all the Supervisors (with the exception of those working in Bengal) were called to the Committee's headquarters at Simla and given detailed instructions on the technique and scope of the enquiries to be conducted by them, the manner in which they were to submit their data, and the centres and units which they were to investigate. In addition, both Supervisors and Investigators were provided with written instructions regarding the

use of questionnaires, sampling of concerns (where this could not be done in advance), filling of the wage forms, etc. In particular, they were asked not only to collect information on the spot but also to draw upon every other possible source of information. In doing so, they were required to distribute copies of the questionnaires in the centres assigned to them not only amongst the sampled units but also amongst Employers' and Workers' associations in the industry and such other associations and individuals as were likely to be interested in the subject. They were also asked to get into touch with officials of Central and Provincial Governments connected with labour and obtain such facilities as might be necessary in doing their work.

5. As far as the field work in Bengal was concerned, it was done by the staff of the Committee under the guidance and supervision of the Labour Commissioner, Bengal, and his subordinate officers. Members, however, paid visits to selected centres and units in Bengal to obtain first-hand knowledge of local labour conditions.

6. The Committee's survey covered all Provinces with the exception of the North-West Frontier Province where none of the Industries selected for survey was sufficiently important. It extended to many of the Indian States also, such as Kashmir, Patiala, Gwalior, Baroda, Mysore, Sandur, Travancore, Cochin, Bundi, Indore and some of the States of the Eastern States Agency. No survey was undertaken in the Hyderabad State as that State preferred to appoint its own Labour Investigation Committee, with terms of reference identical to those of this Committee, for enquiry into local labobur conditions.

7. In dealing with the *ad hoc* survey work, several courses were open to the Committee :—(i) that the Committee, as a whole, to study each industry, (ii) that the surveys to be distributed region-wise and each Member put into charge of a region, and (iii) that each Member to be entrusted with a few surveys throughout India. With a view to speedy and efficient work, the third course was actually adopted. This departure from the usual procedure of the Committee as a whole dealing with the work was necessary in view of the immensity of the task and the necessity of maintaining an all-India prospective. Moreover, it was felt that this procedure would enable Members to make a specialised study of labour conditions in individual industries in different parts of the country. It was also felt that the peculiar problems of industrial labour had more an industry-wise than a region-wise dispersion and that the procedure would be helpful to future legislation which has to take into consideration the diversified conditions of each industry. It will be seen, however, that in the Reports the factual material has been presented both on an all-India and on a regional basis.

8. Thanks and acknowledgments are due to Provincial Governments, State Authorities, Labour Commissioners (and particularly the Labour Commissioner, Bengal), Directors of Industries, Chief Inspectors of Factories, Port Authorities, local bodies, employers' and workers' associations, managements of the units surveyed and all others who rendered help in the collection of the data presented in these Reports.

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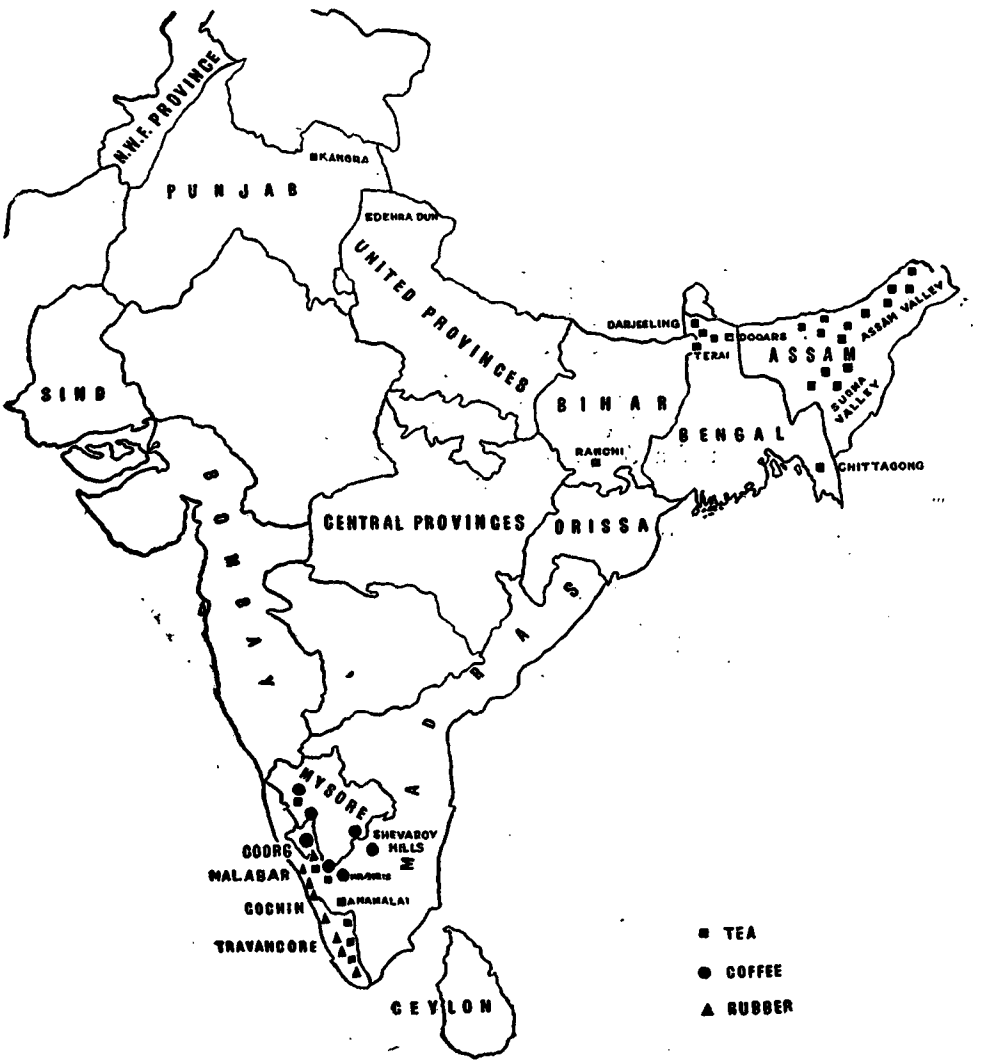
Map showing plantation areas.



CHAPTER I.—INTRODUCTION.

The plantation industry is one of the biggest organised industries in India, judged either by the capital invested, value of production, or the number of persons employed. In fact, from the point of view of employment, it is easily the biggest organised industry in India.

Work in plantations is essentially agricultural, though the plantation system has many features in common with organised industry. As remarked by the Whitley Commission, "The plantation represents the development of the agricultural resources of tropical countries in accordance with the methods of Western industrialism: it is a large-scale enterprise in agriculture".[1] A plantation, strictly speaking, involves the existence of a regular labour force under the control of a more or less elaborate management and frequently a considerable capital outlay, though plantation crops, except tea, are also grown in small holdings.

Plantation Crops.

In India, the term plantation crop is applied to tea, coffee, rubber, cardamoms and cinchona and sometimes to pepper. Tea is by far the most important. Next in importance are coffee and rubber and all these three have been included in the present survey. Labour conditions in minor tea plantations in North India are briefly described in Appendix I. The other crops are of minor consequence. Cardamom plantations, in the strict sense of the term, probably date from the last quarter of the 19th century in Mysore and Travancore. Elsewhere they have arisen comparatively recently as alternative crops along with coffee and tea. The area under cardamom plantation was estimated in 1940 by the United Planters' Association of Southern India at 81,720 acres. Cinchona was planted extensively in the 1880's but has now disappeared as a plantation crop except on Government plantations in Darjeeling district and South India. The area under cinchona in these plantations is 8,500 acres. Recently there has been a renewed interest in cinchona by private capital in Tinnevelly Hills, the Anamallais and Coorg. Pepper is only planted as a secondary crop in plantations, the greater part of the production being by small holders. Area under pepper was estimated in 1940 by the United Planters' Association of Southern India at 7,773 acres.

History.

(a) Tea.

The event which marked the real birth of the Indian tea industry was the discovery by Major Robert Bruce in 1823 of indigenous tea plants in Assam. During the following decade further discoveries of tea growing wild in Assam were made and in 1834 Lord William Bentinck, the then Governor-General, appointed a Committee charged with the duty of submitting to Government "a plan for the accomplishment of the introduction of tea cultivation into India and for the superintendence of its execution". The use of the word 'introduction' implies that the underlying idea was to find out the possibility of establishing tea in India from seed or plants imported from China. The committee's work, however, led to the starting of a great industry for the cultivation of India's indigenous product. In May 1838, the first consignment of eight chests of tea from India was shipped to London and was sold by auction at prices ranging from 16 shillings to 34 shillings per pound[2].

[1]Report of the Royal Commission on Labour in India, p. 349.

[2]Memorandum relating to the Tea Industry and Tea Trade of the World (published by the International Tea Company, London), p. 23.

The experimental holdings of Government were made over in 1839 to the Assam Company which was founded that year. It was " the first tea concern and is to this day the largest company in India. It was anything but prosperous during the first ten years of its existence. But about 1852, its condition began to improve and its success made the prospects of the industry appear so promising and attractive that speculators eagerly rushed into it. The discovery of the indigenous tea in Sylhet and Cachar gave the impetus for an expansion of the industry into the Surma Valley, and in a few years thereafter the whole of the upper portions of the province of Assam (both Brahmaputra and Surma Valley) was converted into a huge tea plantation. Thus the foundations of the present tea industry were laid during the fifties of the last century. Since that period the growth of the industry has been phenomenal and ' in less than a hundred years the British Empire has become the tea garden and tea-shop of the world.' ".[1]

Tea was experimentally started in the Darjeeling district in 1940. The industry in the Terai started in 1862 and in the Dooars twelve years later. Tea has also been cultivated in South India since 1853 ; chiefly in the Wynaad, the Nilgiris, and latterly in the Anamallais and the high range of Travancore.

Most of the important gardens in North-East India are managed and financed by Agency firms in Calcutta and the same tendency is extending in South India where the majority of the estates used to be privately owned. Taking India, as a whole, approximately 60 per cent. of the acreage now under tea is owned by interests in the United Kingdom—mainly limited liability companies and of this proportion of the total holdings approximately 80 per cent. is represented by ten leading Agency Houses in Calcutta.

The following table[2] shows the relative importance in 1942 of the various Provinces and States from the point of view of the tea industry.

TABLE I

Area and production of tea and number of persons employed in India, 1942.

Area	Total area of plantation '000 acres.	Area under crop '000 acres.	Production '000 lbs.	Average daily working strength (permanent and temporary).
Assam	1,693	440	308,877	521,667
Bengal	498	201	149,309	221,251
Madras	195	79	44,832	68,373
Punjab	10	9	2,854	11,098
U. P.	28	6	1,978	3,836
Bihar	13	3	2,101	3,006
Coorg	1	*	227	230
Total, British India ..	2,440	741	510,178	829,461
Travancore	155	77	47,305	79,941
Other States	69	18	6,382	17,059
Total, Indian States ..	224	95	53,687	97,000
Total, India ..	2,664	836	563,886	926,461

* Less than 500 acres.

1. The Indian Year Book, 1943-44, P. 702.
2. Compiled from Indian Tea Statistics, 1942.

(b) Coffee.

The production of coffee in India is mostly confined to the South. According to tradition, Baba Budan, returning from a pilgrimage to Mecca in the 16th century, brought seven seeds and planted them on the hills, now called after him, in the Kadur district of Mysore, but the systematic cultivation of coffee in India dates only from 1830 when Mr. Cannon opened a plantation near Chickmagalur. During the next 40 years, a large area was put under coffee not only in Mysore, but also in Coorg, the Nilgiris and Shevaroy Hills, the Wynaad, and Travancore. In 1862 the coffee industry in South India had reached its zenith, but three years later the borer beetle made its appearance in the Wynaad and Coorg and the leaf blight (*hemileia vastatrix*) which ruined the Ceylon coffee estates followed in 1869. The coffee industry in the Wynaad, then the main centre of production, was wiped out and the same fate befell much of the coffee in Mysore and Coorg. In this state of affairs it was only natural to look round for a species of coffee which was more resistant to leaf disease than the valuable but delicate arabica. Seed was imported from outside and various experiments were tried. It is believed that robusta was first introduced by Messrs. Binny & Co. from Java about 1911 for planting in South Coorg. The gradual increase of robusta is, however, regrettable as it spoils the name of Indian coffee which is generally of superior quality. "Indeed the coffee from certain Mysore estates commands higher prices than even so-called Mocha, much of which, if the truth were known, is Native cherry exported by dhow from Mangalore and Tellicherry to Red Sea ports".[1]

The following table[2] shows the relative importance in 1943 of the various Provinces and States from the point of view of the coffee industry :—

TABLE 2

Area and production of coffee and number of persons employed in India, 1943.

Area	Total area of plantations '000 acres	Area under crop '000 acres	Production '000 lbs	Average daily working strength (permanent & temporary)
Madras	124	545	12,059	85,699†
Orissa	*	*	4	44
Coorg	70	37	4,530	13,700
Total, British India ..	195	92	16,594	99,443†
Mysore	137	97	17,177	60,620
Travancore	5	1	117	881
Cochin	5	1	238	1,549
Total, Indian States ..	147	99	17,533	63,050
Total, India ..	343	191	34,127	162,493†

* below 100 acres.

Note 1.—Plantations having an area of less than 5 acres have been omitted.

Note 2.—Figures of Travancore relate generally to company-managed estates only.

†There is something wrong about these figures. Madura district which has only 8,768 acres under coffee is shown to have employed 49,398 outside labour (temporary) in 1943, whereas it employed 2,283 only in the previous year. The latter figure appears to be correct. The total employment should, therefore, be about 115,000.

[1]Handbook of Commercial Information for India (3rd Edition) p. 316.

[2]Compiled from Indian Coffee Statistics, 1942-43.

The latest figures kindly supplied by the Controller of Coffee show that in 1944 the total area under coffee was 206,153 acres. Mysore State had 37 per cent., Madras 36 per cent., Coorg 20 per cent., Travancore 6 per cent. and Cochin 1 per cent.

(c) Rubber.

Though a number of rubber yielding trees are indigenous to Indian forests, they are not sufficiently abundant to justify exploitation and apart from two plantations in Assam under *ficus elastica,* the spasmodic efforts made to grow rubber on a commercial scale never got beyond the experimental stage before 1900. It was not until 1902 that the Periyar estate in Travancore was opened with *para* rubber (*hevea brasiliensis*) which has generally proved by far the most suitable variety for cultivation in South India and which by 1914 practically ousted the other trees from production. The Malabar coast below the Western Ghats from Mangalore to Cape Comorin enjoys climate and rainfall scarcely less favourable than Malaya and is pre-eminently suitable for rubber cultivation in India. The invention of the pneumatic tyre was largely responsible for the rapid growth of the plantation rubber industry.

The following table[1] shows the relative importance in 1942 of the various Provinces and States from the point of view of the rubber industry :—

TABLE 3

Area and production of rubber and number of persons employed in India, 1942.

Area	Total area of plantations '000 acres	Area under crop '000 acres	Production '000 lbs.	Average daily working strength (permanent & temporary).
Madras	53	16	4,296	6,319
Coorg	6	3	908	1,443
Total, British India ..	59	19	5,204	7,762
Travancore	142	104	28,386	31,353
Cochin	16	14	2,097	7,590
Mysore	1	*	63	182
Total, Indian States ..	159	118	30,546	39,125
Total, India ..	219	138	35,750	46,887

* below 1,000 acres.

It will be seen that Travancore State is the most important rubber producing area in India and has nearly 76 per cent. of the area under rubber. The latest figures kindly supplied by the Indian Rubber Production Board show that in 1944 the area under rubber was 149,062 acres.

Employment.

The tea industry in India employs at present about 927,000 workers, coffee about 115,000 and rubber about 50,000. The plantation industry, therefore, employs about 11 lakhs of people. The employment figures in 1939 were, tea 925,237, coffee 98,570 and rubber 32,947 or 1,056,754 in all. It is likely that when the present international agreements about production and export of tea and rubber lapse in the near future, and prices show violent fluctuations as in the past, the problem of unemployment and under-employment among plantation workers will arise. There are already some estates

[1]Compiled from Indian Rubber Statistics, 1942.

in the Surma Valley which have large settled labour force and where the natural growth of population has resulted in an excess of labour. There is also the probability of the tea industry in North East India adopting a policy of reducing labour force and giving it a full days work as a result of the inevitable increase in cash wages which will occur in the post-war period. The development of synthetic rubber will also affect employment in rubber estates. It may, however, be safely stated that the employment will be always in the neighbourhood of a million in this industry.

Special features.

The special features of plantation labour are

(1) The labour in Assam and, to a certain extent, in the Dooars and the Terai is recruited from a great distance, or born of parents who were themselves so recruited. The tea industry of Assam depends on imported labour and is unique among large scale industries in this respect. The plantations in the South are, however, situated close to the areas from which their labour is obtained.

(2) The family rather than the individual is the unit of recruitment. All the adult members and older children of the family work on the plantations.

(3) Bulk of the labour employed in plantations resides on the estates, though village labour is also employed in many cases in the North East India. In the South, village labour is employed in rubber and, to a smaller extent, in coffee estates.

(4) There is elasticity as regards hours of work, within certain limits, in North East India, unlike in the South.

(5) The common method of payment of wages in South Indian plantations is the annual settlement at the end of 9 or 10 months when the labourers go home for two or three months and may or may not return to the same estate. This period of absence is usually either December to February or July to September in tea areas, April to July in coffee areas and January to March in rubber areas.

(6) The inadequacy of cash wages, though, in addition, the labourers get certain concessions or perquisites such as land for cultivation, free housing, free medical aid etc.

(7) There is generally more personal touch between the manager and the labour force in plantations than in other industries.

(8) The plantation labour, except the factory labour, does not come under any protective labour legislation, except the Workmen's Compensation Act. Though a large number of women are employed in the industry, there is no Maternity Benefit Act in force in any of the plantations areas, except Assam where such a measure has been recently introduced. The tea factories, the coffee curing works and the larger rubber factories come under the Factories Act but merely as seasonal factories, though the tea factories in South India work almost throughout the year, and, in any case, more than 180 days in a year.

(9) The plantation labour is absolutely unorganised and helpless though the planters are extremely well organised and powerful.

Position of the industry.

(a) Tea.

India is now probably the largest tea producer in the world and supplies about 40 per cent. of the world's demand for tea. The average (weighted) production in the whole of India is about 600 pounds per acre plucked.

The year 1932-33 was one of the worst for tea industry. In addition to the world-wide depression there was considerable overproduction with the result that producers of tea all over the world were faced with declining prices and accumulation of stocks. The efforts of the industry to counteract the situation resulted in the institution, in April 1933, of a scheme to restrict production and limit exports of tea from India, Ceylon and the Netherlands East Indies and the formation of an International Tea Committee to operate and administer the scheme. The Indian Tea Control Act, 1933 (XXIV of 1933), was passed to give legislative effect to the scheme in British India and legislation was also enacted by certain Indian States concerned to implement the agreement in their territories. The administration of the Act was placed in the hands of a Committee, representative of the various tea Associations in India, called the Indian Tea Licensing Committee. The Committee operates from two centres, namely, Calcutta for Northern India and Coonoor for Southern India. The export quota for each tea estate for each financial year is determined by the Indian Tea Licensing Committee. The right of the owner of a tea estate to which a quota has been allotted to obtain a licence to cover the export to overseas is transferable. The Tea Control Act was renewed in 1938 for a period of five years and was again renewed in 1943 and will remain in force until the end of 24 months commencing on the 1st April subsequent to the termination of the hostilities then in progress. The Tea Control Act has considerably benefited the industry and has stabilised its position, but has reduced work for labour. As a result of the control, the tea industry appears to be better situated today than other producers of most agricultural crops of international importance.

Shortly after the outbreak of the war, it was intimated that the Food Controller in the United Kingdom had decided to purchase from India certain quantity of his requirements of tea. The Government of India accordingly decided that all tea for export to the United Kingdom should be controlled and purchased on behalf of His Majesty's Government and for this purpose they have appointed a Tea Controller for India, who is also the Chairman of the Indian Tea Licensing Committee.

Regular weekly auctions of tea are held in Calcutta during the period of June of one year to about March in the next year. There are no auction sales of tea in South India. The following table[1] shows the variations in the average price of Indian Tea sold at auction sales in Calcutta.

TABLE 4

Average price of tea at auction sales in Calcutta for specified years.

Year	Average price per pound		Total weighted average price per pound
	for tea with export right	for tea for internal consumption	
	As. P.	As. P.	As. P.
1932-33	..	..	5 2
1933-34	9 7	4 10	8 1
1934-35	8 9	5 2	7 3
1935-36	9 5	4 10	7 9
1936-37	10 1	4 8	8 2
1937-38	11 4	4 9	8 11
1938-39	9 7	4 0	7 7
1939-40	11 5	4 4	8 9
1940-41	13 6	4 1	6 7
1941-42	16 9	7 4	14 1
1942-43	16 0	16 2	16 2

[1]Review of the Trade of India, 1942-43, p. 88.

Although India produces large quantity of tea, its consumption of tea is comparatively little, being about 25 per cent. of the produce. The following table shows the export of tea by sea from India from 1927-28 to 1942-43.

TABLE 5

Quantity and value of tea exported by sea, 1928—1943.

Year	Amount exported (million of lbs)	Value in lakhs of rupees
1927-28	362	32,48
1928-29	360	26,60
1929-30	377	26,01
1930-31	356	23,56
1931-32	341	19,44
1932-33	379	17,15
1933-34	318	19,85
1934-35	325	20,13
1935-36	313	19,82
1936-37	302	20,04
1937-38	334	24,39
1938-39	348	23,29
1939-40	359	26,31
1940-41	349	27,75
1941-42	382	39,57
1942-43	323	31,64

The value of export trade in tea represented 16.25 per cent. of the total value of exports from India in 1942-43, an individual total only exceeded by cotton and jute.

Tea Cess Fund.

In 1903, an Act known as the Indian Tea Cess Act (Act IX of 1903), was passed at the request of the Indian Tea Association to furnish funds to advertise and stimulate the tea drinking habit and by the appointment of agents in India and abroad to push the sales of Indian tea. Under this Act, a duty of 1|4th pie per lb. was levied on all Indian tea exported upto the 30th April 1921. The duty was gradually raised and now it stands at Rs. 1|6|- per 100 lbs. with effect from March 1939. The total amount of duty collected in 1940-41 was Rs. 50,97,000. The whole of the amount collected is made over to a Fund known as the Tea Cess Fund which is placed at the disposal of the Indian Tea Cess Committee which has been re-named from the 16th February 1937 as the Indian Tea Market Expansion Board. The Indian Tea Cess Act was due to expire on the 31st March 1938, but at the request made by the producers through the Indian Tea Market Expansion Board, the Government of India agreed to extend the life of the Act for a period of 10 years.

Capital employed.

The following table[1] shows the number and capital of Joint Stock Companies engaged in the tea industry during 1938-39 to 1942-43.

TABLE 6

Number and capital of Joint stock Companies engaged in the tea industry in India, 1939—1943.

Year	Companies incorporated in India		Companies incorporated in the United Kingdom and elsewhere		Total		
					Number	Paid-up Capital	
	Number	paid-up capital Rs. (1,000)	Number	Paid-up capital £(1,000)		Cols. (3) +(5) ** Rs.(1,000)	Equivalent of Col. 7 in sterling **£(1,000)
1938-39	438	13,02,83	191	27,345	629	49,48,83	37,116
1939-40†	440	13,30,49	186	27,460	626	49,91,82	37,439
1940-41†	444	13,05,85	186	29,357	630	52,20,12	39,151
1941-42†	438	12,94,47	193	29,561	631	52,35,94	39,270
1942-43†	448	13,12,66	180	27,086	628	49,24,13	36,931

** Conversion made at the rate of 1*s.* 6*d.* = Re. 1.

† Provisional.

Besides investment by Joint Stock Companies there is also capital invested by private owners, especially in coffee and rubber. There is, however, no way of estimating the capital invested in private enterprise.

Dividends and Values of Shares.

The following information compiled from the Indian Tea Statistics for the respective years refers to tea companies incorporated in India.

For 1939, 128 companies out of 143 declared dividends amounting to 15 per cent. on their aggregate capital of Rs. 531 lakhs. For 1940, 123 companies declared dividends amounting to 15 per cent. on their aggregate capital of Rs. 508 lakhs. For 1941, 142 companies out of 155 declared dividends amounting to 18 per cent. on their aggregate capital of Rs. 584 lakhs. For 1942, 147 companies declared dividends amounting to 28 per cent. on their aggregate capital of Rs. 595 lakhs. Dividends paid in recent years by individual tea, coffee and rubber rupee companies are shown in Appendix II.

The value at the close of March per Rs. 100 of Joint Stock capital as calculated on the prices of shares quoted in the Calcutta share market was Rs. 202 in 1941, Rs. 248 in 1942, and Rs. 393 in 1943 for 139, 147 and 148 companies, respectively.

(b) Coffee.

The acreage under coffee in India is only about 2 per cent. of the world's coffee area and India's share in the world production of coffee is less than 1 per cent. Quantitatively India's position in the world trade is thus of minor consequence though qualitatively she holds her own with the world's best coffee. The production of coffee in India is in the neighbourhood of 15 or 16 thousand tons, the production in 1943-44 being 17,215 tons. The average annual yield of coffee per acre plucked is about 200 pounds. There is one feature which in recent years has tended, and will tend, to increase the South Indian Coffee crop and that is the steady turnover from arabica coffee to robusta. The proportion of robusta has increased in the last ten years from approximately 20 per cent. of the crop to nearly 33⅓ per cent. and there seems little doubt that within a few years fully 50 per cent. of the South Indian crop will be robusta. An important factor which has assisted in

[1] Indian Tea Statistics, 1942.

maintaining the arabica crop has been the introduction of spraying for controlling the attacks of the leaf blight, *hemileia vastiatrix*. Speaking generally, the most striking feature of the coffee crop is its seasonal variation in size. These variations, as far as India is concerned, tend to cancel themselves out somewhat, for whilst one district is enjoying a bumper crop another district may be experiencing a lean one.

Prices too have shown very wide fluctuations. From 1922 to 1929, prices averaged about Rs. 80 per cwt. The slump began in 1930 and prices fell steadily till April 1936 when they reached the lowest price of Rs. 29. They rose to Rs. 32 in 1938 and remained at that figure until October 1940, when the rumour of the introduction of coffee control forced them up to Rs. 40. Prices are now about Rs. 84. These prices are the value of A grade F.A.Q. (fair average quality), Mysore|Coorg coffee to the grower. The value of the cherry coffee produced by the small grower is always approximately one-sixth less.

During the decade before the introduction of the Coffee Control in 1940, there was no question of improvements in coffee estates. The struggle was to keep going and many failed in the struggle. Relief loans were floated by both the Mysore and Coorg Administrations to assist planters.

The average export of coffee for the five years before the war was 8,875 tons and the average value was about 78 lakhs of rupees. During the war exports have been increasingly limited owing to the increase in the internal demand. Much of it is due to the demand of the Defence Services and the Americans, but the genuine internal demand also appears to have increased very considerably. It is believed that at present consumption in India is about 1,000 to 1,200 tons a month. The value of the coffee exported in 1940-41 and the two subsequent years was 24, 40 and 52 lakhs of rupees only.

Coffee Cess.

The Indian Coffee Cess Act was introduced in 1935. Under this Act, power was given to Government to levy a cess on exports, the proceeds to be devoted primarily to propaganda but also to be available for research. The original cess was fixed at eight annas a cwt. but was subsequently raised to one rupee a cwt. in May 1938. The Cess Fund is administered by the Indian Coffee Cess Committee which has been constituted under the provisions of the above Act.

The Coffee Market Expansion Act.

Following the collapse of France and Norway, India's important European markets disappeared. In order to secure a fair price for the grower and to secure export markets for the surplus coffee, an agreed scheme for the control of the coffee industry was drawn up and accepted by the representatives of all coffee interests in India. The scheme came into force on the 21st December 1940 with the promulgation of the Coffee Market Expansion Ordinance (No. XIII of 1940), and the provision made thereunder was continued by the enactment on the 2nd March 1942 of the Coffee Market Expansion Act, 1942. The Act will remain in force until the end of the twelve months commencing on the 1st July subsequent to the termination of the hostilities, and during this period the Indian Coffee Cess Act, 1935, shall be deemed to be repealed, without prejudice, however, to the continuing validity of any action taken by the Indian Coffee Cess Committee which is not inconsistent with the provisions of this Act. The control of the scheme is in the hands of the Indian Coffee Market Expansion Board which controls the production and consumption of coffee and the whole coffee crop is vested in it. Similar legislation has been brought into force by the States of Mysore, Cochin and Travancore. There has been no international organisation in coffee as in the case of tea and rubber.

Excise Duty.

As from the 1st April 1944, an excise duty of two annas a pound has been levied on the sale of all raw coffee.

(c) Rubber.

Rubber trees grown from ordinary seed yield variable quantities of rubber, the average in South India being about 300 pound per acre per annum. India's rubber production per year is about 16,000 to 17,000 tons which is less than 1 per cent. of the world's production. The export trade in rubber is marked by great variations. The average annual export for the five years ending with 1939 was 8,910 tons. The export in 1940 and 1941 was 13,023 tons and 4,103 tons respectively. There was no export in 1942 and only 801 tons were exported in 1943. Similarly there have been great variations in the price of rubber. The price of rubber in 1910 was 12s. 6d. per pound. The rush to plant resulted in over-production and in 1922 the price fell to 6¾*d.* per pound. After recovering during the operation of the Stevenson Scheme in 1925 to 4s. 8d., it fell again in early 1930 to less than 2d. per pound. Since the introduction of the International Rubber Regulation Scheme in 1934, the price of rubber has not fallen below 6d. per pound. It has been recently fixed at round about 1 shilling per pound.

There is at present no cess on rubber, but under Clause 11(2) of the Rubber Control & Production Order, 1942, where any rubber is sold or otherwise transferred to the Central Government under sub-clause (1), the seller or transferor has to obtain from the Controller or other person acting on behalf of the Central Government a certificate in respect of which a fee at the rate of 4 annas for every 100 pounds or part thereof sold or transferred is payable by the seller or transferor. As the Central Government buys practicably all the Indian production of rubber, this virtually constitutes a cess In addition, Travancore levies an export duty of Rs. 1|8|- per cwt.

Rubber Production Bonuses.

When Malaya was lost it was found necessary to stimulate production of rubber in India and the following bonuses were paid under the Production Bonus Scheme.

Period	Rate of Bonus (per 100 lbs of rubber) Rs. a. p.
From 10-4-44 to 31-7-44	11 1 9
„ 1-8-44 to 30-9-44	Nil
„ 1-10-44 to 31-12-44	11 1 9
„ 1-1-45 to 30-6-45	33 5 3

Legislation similar to the Rubber Control and Production Order, 1942, has been enacted by Travancore and Mysore States. Cochin State has adopted the British Indian Law *mutatis mutandis*. The Indian Rubber Control Act, 1934, has lapsed and the Rubber Licensing Committee created thereby ceased to exist on 30th April, 1944. The only official organisation existing at present in connection with *hevea* rubber production industry is the Indian Rubber Production Board at Kottayam in Travancore State. Production of rubber from sources other than the *hevea brasiliensis* tree (*e.g.*, *Ficus elastica*, *Cryptostegia Grandiflora*) is looked after by the Rubber Directorate in the Department of Supply.

Phenomenal progress has been achieved in the production of synthetic rubber during the war years. What reactions this progress will have on the natural rubber industry is a matter which is being warmly debated at present. It seems none too certain, however, that the synthetic product will drive out the natural one. The question is important for labour if the synthetic rubber will depress prices of the natural product.

CHAPTER II.—ASSAM.

Assam is by far the most important planting area in the whole of India. In 1942, it had 440,278 acres under tea, *i.e.*, nearly 53 percent of the total acreage under tea and nearly 38 percent of the total acreage under tea, coffee and rubber in India. The daily average number of persons employed, both permanent and temporary, on the tea gardens in Assam in the same year was 521,667 which is 56 percent of the average number employed in all the tea estates and 46 percent of the total average daily employment in the chief plantation crops mentioned above in India. The actual numbers of workers, however, are much larger than those indicated by the daily averages. Plantations are seasonal industries and many more workers are employed during the busy season. Moreover, account must also be taken of the high rate of absenteeism and the migratory habits of the workers. Tea, in fact, is the chief industry of Assam and the labour population in the tea gardens constitutes more than 10 per cent. of the population of the Province. The prosperity of Assam is thus closely linked up with the fortunes of the tea industry.

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METHOD OF SURVEY.

The usual method of investigation followed by the Labour Investigation Committee and described in the Preface could not be followed in the case of Assam plantations as the Indian Tea Association was opposed to such investigation on the plea that it would unsettle labour in an area which was in the war zone, though it had no objection to my doing the investigation myself. It was, therefore, a question of dropping Assam altogether or doing the investigation myself unaided by any field staff. As Assam is the most important tea growing province in India and as the plantation industry there has some special features, it was considered desirable to adopt the latter course.

I toured in Assam for 37 days and visited 39 gardens, *vide* Appendix III, selected by me. They were selected by a rough process of sampling aimed at securing as representative a picture as possible of labour conditions in different districts and in gardens of different sizes and under different ownership.

Out of 39 gardens, 14 were over 1,000 acres, 17 were between 500 and 1,000 acres and the remaining 8 were below 500 acres. 29 were European-owned and 10 Indian-owned. 25 were in Assam Valley and 14 were in Surma Valley. The gardens selected formed nearly 4 percent of the gardens in Assam ; their total acreage under tea was 35,658 or about 8 percent of the area under tea in Assam and the number of workers on the books of these gardens in 1944 was 49,162, or about 9 percent of the total labour force in Assam tea gardens. I perused the various registers maintained in the offices of the gardens, saw the housing, medical facilities, etc., provided and talked with several labourers at work on each garden privately, *i.e.*, in the absence of manager or any member of the garden staff. Copies of the Supplementary Questionnaire on plantations (*vide* Appendix IV) were sent to the Government of Assam, the Indian Tea Association, the Assam Valley Indian Tea Planters' Association and the Assam Bengal Indian Tea Planters' Association. The Indian Tea Association represents about 92 percent of the tea industry in Assam and it sent an elaborate printed reply which was very helpful. Replies were also received from the Assam Government and the other associations. The sampled estates and some others also sent in their individual replies. I also discussed labour conditions in Assam plantations with representatives of the Indian Tea Association and other associations, the various circle committees and the Sylhet-Cachar Cha-Bagan Mazdoor Union.

LOCATION AND STRUCTURE.

Geographical distribution.

Tea is grown all over Assam. The province is divided into two valleys called the Assam or the Brahmaputra Valley and the Surma Valley. In the upper districts of the Assam Valley, namely, Sibsagar and Lakhimpur, one comes across miles and miles of planted tea without any break. The sight is very pretty and the whole area looks like covered with a green velvet carpet. Assam seems to be particularly suited for cultivation of tea as it has a hot moist climate with plenty of sun and rain. The tea plant yields its biggest harvest in the hot house atmosphere of the tropical plains such as Assam, though the quality of the tea is inferior to that grown in the hills.

The relative importance of the districts in Assam from the plantation point of view is shown in the following table[1] :—

TABLE 7

Number of Tea Plantations and their area in Assam in 1942.

Name of District	Number of plantations	Total area under tea (acres)	Area in the occupation of planters but not under tea cultivation (acres)	Total area of plantations (acres)
ASSAM VALLEY.				
Lakhimpur	250	109,936	252,413	362,349
Sibsagar	284	105,206	262,344	367,550
Darrang	151	61,078	173,266	234,344
Nowgong	46	12,291	35,925	48,216
Kamrup	22	4,514	22,356	26,870
Goalpara	10	3,647	11,112	14,759
Sadiya Frontier Tract	2	657	2,623	3,280
SURMA VALLEY				
Sylhet	183	89,319	257,533	346,852
Cachar	180	53,630	235,359	288,989
Total ..	1,128	440,278	1,252,931	1,693,209

Structure of the Industry.

Unlike in South India, about 90 percent of the area under tea in Assam is owned by Companies and not by private persons. The Companies are managed by the big and powerful Agency Houses in Calcutta which lay down the policy, control the expenditure, appoint the managers and his European assistants. The manager has generally a free hand in the internal administration of the estate, but does not have much scope for initiative. The younger generation of planters seems to be interested in labour welfare and would like to spend on improvemet of labour conditions, but they are not often given a free hand by the Agency Houses. The average pay of a manager is about Rs. 800 to Rs. 1,000 per month, but he gets a substantial amount by way of commission which is usually 5 percent of the net profits. One superintendent of a big Company is said to have received £10,000 by way of commission alone in one of the pre-slump years. This lure of commission probably also comes in the way of spending money over labour welfare, as the money thus spent naturally affects the amount of commission. It is said that the visiting agents who inspect the gardens on behalf of the Agency Houses once a year or so check the tendency of a manager to neglect his garden and his labour for the

[1]Compiled from Indian Tea Statistics, 1942.

sake of his commission, but the best way would be to remove the temptation altogether and, if necessary, to increase the salary of the manager to a figure which represents the average of his salary and commission for the last 10 years. Some companies have abolished the commission system.

Out of 1,128 gardens in Assam 270 are Indian-owned. Most of the Indian gardens are small and are proprietary concerns. The average size of an Indian garden would be about 100 acres as against 800 acres of European gardens. The total area of Indian-owned gardens is only about 15 per cent. of the area under tea in Assam. Most of the Indian gardens were started within the last 25 years. Some of the gardens in the Surma Valley, especially in the Cachar district, are like Zamindaries. A small portion is under tea and the rest of the area is given out for cultivation to tenants. For instance, one garden in Cachar has a grant area of 13,800 acres (9,455 acres of which are for ever discharged from payment of land revenue on payment of Rs. 51,907-1-7 by the Company in 1881) but has tea only on 1,270 acres. There are about 2,000 tenants on this garden. In fact, tea gardens occupy an area of nearly 700 square miles out of 1,900 square miles in this district. Even in the Assam Valley there was a garden with four out-gardens which had a grant area of 11,800 acres and tea only on 460 acres. About 5,000 acres were settled with tenants at Rs. 3 per acre.

Internal Establishment.

The supreme authority in a garden vests in the manager, subject to the control of the Agency House. The average European manager looks upon himself as the Captain of a ship. He has, in normal times, one or more European assistants according to the size of the garden. Below the Assistant manager is the head moharir who conveys the orders of the manager regarding the work to be done, task etc., to the labourers and is in general supervision of the field work. He is assisted by *hazira* moharirs below whom are the sardars who closely supervise the work of the labourers in their gangs. In the Surma Valley, the head moharir is called the *tilla babu* who was formerly known as the jamadar. The tea factory, the office and the dispensary or hospital have their separate establishments which work directly under the manager.

Cultivation and Manufacture of Tea.

Tea is a product of the tea plant, *Thea Sinensis*, a distinct species having certain varieties. The seed is planted in nurseries and the young plants are transplanted usually when they are not less than six months or more than 18 months old. Usually, 3,000 bushes are planted in an acre. At an early stage in the growth of the young plant, it is cut back to a few inches from the ground to provide a main stem and encourage lateral growth. Thereafter it is lightly pruned in such a way as to prevent a naturally vertical growth and provide a good spread of side branches, thus creating—instead of the tree into which the plant would naturally develop if left undisturbed—a bush of a size and shape suitable for plucking, usually from three to four feet in height and of much the same span. If not maintained in this form it would grow into a tree of forty or fifty feet in height.

The bush is pruned at regular intervals throughout its life, partly in order that it may maintain that formation but mainly to allow of its continuing its functional activity of producing flush (*i.e.*, young fresh leaves) which becomes impaired at certain periodic stages of its development. After a period of yielding flush which in North India is from 8 to 9 months of the year, the sap passages become partially obstructed, the wood hardens and the bush becomes

unproductive of flush. Pruning, *i.e.*, the removal of extra foliage and over-matured wood, then becomes necessary to maintain the bush in the somewhat artificial condition of a constant leaf producer. Pruning is done with a sharp and specially shaped knife. The tendency in recent years has been for pruning to be light rather than heavy until the time is reached when the wood must be cut down to a new level. Periods of pruning at high elevations are usually longer than in the plains. Light pruning is done every year in the plains as in Assam, but the period is roughly increased by one year for every 1,000 feet of elevation. Pruning at all times is an operation calling for the highest care to avoid mal-treatment of the bushes and their being rendered susceptible to pests and diseases.

The process of harvesting the flush is known as plucking. The plucking of the flush from the fully developed bush is an important and skilled operation. It almost entirely devolves upon female labourers who achieve expert facility in selecting the leaves to be plucked, breaking them off with finger and thumb and transferring them by handfuls into baskets carried on their backs, all at an amazing speed. Normal plucking is the taking of two leaves and a bud ; anything less than this would be ' fine ' plucking and the inclusion of an extra leaf or leaves constitutes ' coarse ' plucking. The period of flushing lengthens more or less in accordance with altitude. In the plains, plucking is carried out at intervals of a week, but at the highest elevations, the interval is increased to 12 or 14 days or even longer. In North India plucking begins in March|April and continues till the beginning of December, while it continues throughout the year in South India. Each bush usually yields leaf sufficient to make ½ lb. of tea per year. When the day's plucking is over, the leaf is brought to the factory for manufacturing into tea.

The processes of manufacture are,

(a) withering
(b) rolling
(c) fermentation
(d) drying (or firing)
(e) sorting (or grading)

(a) When the plucked leaf reaches the factory it is immediately spread, thinly and evenly, on specially prepared racks (or ' withering tats ' as they are generally known) which are arranged in the upper storeys of the factory or else in separate sheds built to accommodate them. These tats are usually of tightly-drawn hessian cloth or wire-mesh. ' Withering ' is a term of convenience rather than of exact application ; the leaves do not, strictly speaking, wither but undergo a physical change by evaporation of much of their moisture content until they assume a flaccid condition suitable for rolling. The time required before the leaf reaches this stage depends on temperature and humidity and may range from about 12 hours to 20 or 24 hours and upwards.

(b) After the correct degree of wither has been obtained, it is put in a rolling machine which consists broadly of two parts which are moved in a rotary direction by a crank. The object of rolling is to break up the leaf-cells and liberate the juices and enzymes secreted therein. Rolling imparts to the leaf the ' twist ' which characterises it in its manufactured state. It is in the process of rolling that the leaf undergoes its first significant chemical change, changes its colour and gives forth its characteristic aroma.

(c) The leaf is then taken to a fermenting room where it is thinly spread on a cement or tiled floor in a cool humid atmosphere. There the process of fermentation (more correctly, oxidisation) which started in the rollers is completed. The leaf undergoes a further chemical change and changes from a

greenish to a bright copper colour like the leaves have when infused in the tea pot. The period during which the leaf is spread on the fermenting floor may vary from about 20 minutes to upwards of one hour.

(d) From the fermenting room the leaf passes into the drier. A drying machine consists of a large iron chamber inside which trays travel slowly from top to bottom (more or less on the endless-chain principle) with a furnace attached. From the furnace a continuous blast of hot dry air is forced into the chamber through which the tea passes on the trays which renders it dry, brittle and black in colour.

(e) The tea is now completely manufactured and all that remains to be done before it is packed is to pass it through the sifting machine. The sifter is composed of a number of sloping trays with wire bottom of different meshes. Through the topmost tray, all but the coarsest tea will sift, through the second tray only the somewhat fine tea will pass and so on to the bottom tray through which tea dust alone will filter, each sieve arresting a particular grade of tea. The trays are made to oscillate at a high speed by the factory engine and ejects the various grades of tea through apertures, when it is collected in baskets for the final firing which renders it fit for packing.

There is a general classification of tea into two grades, *viz.*, Broken grades and Leaf grades. The former comprise the smaller tea sifted from the bulk or resulting from cutting ; the latter represent the larger grades of tea left after sifting the broken grades. Eliminating any meticulous or "fancy" grading, the usual broken grades are known as Broken Orange Pekoe, Broken Pekoe, Broken Pekoe Souchang, Fannings and Dust, while the customary leaf grades are Orange Pekoe, Pekoe and Pekoe Souchang. Each of these terms denotes only a certain size and appearance of leaf ; it has no reference to quality or kind. Broken grades which, other things being equal, give a darker liquid and a stronger tea (the two things are not always synonymous) are in general use in the United Kingdom ; leaf grades, being lighter coloured and less strong teas, are popular on the Continent of Europe and in North America.

The process of manufacture described above refers to Black Tea which is most commonly known and is in general use. Another form which manufactured tea takes is Green Tea in which leaves do not undergo any fermentation in the process of manufacture. Tea manufactured in India is almost entirely Black Tea, while Green Tea is mainly produced in China and Japan.

Under modern systems of cultivation, tea, in the forcing climates of plains, may become productive in from two and half to three years and fully developed within a few years later. On the hills, the growth is much slower and full maturity is not reached until 9 or 10 years from planting or longer. The age to which a tea bush can attain and still bear healthy shoots is uncertain but there are healthy bushes of 60 years of age in many tea gardens in Assam.

A well-found, self-contained tea estate forming an economic unit may be anything from, say, 300 to 3,000 acres in extent. By self-contained is meant an estate having a resident manager a permanent resident labour force, and a fully equipped factory with all necessary ancillary plant and buildings. In Assam, 1,128 plantations had a total area of 4 40,278 acres under tea in 1942, *i.e.*, an average of 390 acres per plantation.

EMPLOYMENT.

Labour Population.

The following table[1] shows the labour population living in Assam tea gardens during the last 6 years :—

TABLE 8

Labour population living on Assam tea gardens, 1939-44

(*Mean annual strength*)

Year	Adults	Children	Total
1938-39	605,522	556,331	1,161,853
1939-40	606,128	567,836	1,173,964
940-41	602,104	567,401	1,169,505
1941-42	589,027	566,115	1,155,142
1942-43	591,510	573,779	1,165,289
1943-44	593,665	572,351	1,166,016

The labour population consists mostly of Hindus and Christians with a small percentage of Animists. There are a few Muslims also.

The number of workers actually employed on the tea gardens is, of course, not the same as living in them. In 1943-44, for instance, the total number of workers on the books and the average daily working strength (average of 2 months only)[2] were 46.5 (48.1) and 34.7 (36.9) per cent. respectively of the total labour force living on the gardens. The corresponding percentages for adults and children were respectively about 76.7 (79.4) and 56.9 (60.9), and 15.6 (15.8) and 11.2 (12.2) as shown below. The figures in brackets are for the previous year. It is thus seen that only less than half of the labour population on tea gardens were actual workers.

TABLE 9

Labourers working on Assam Tea Gardens, 1943-44[3].

Class of workers	Number living on tea gardens (mean annual strength)	Total number of labourers on the books (average of 2 months only)		Average daily working strength	
		Number	percent	Number	percent
Adults	593,665	455,579	76.7	338,195	56.9
Children	572,351	86,520	15.6	65,855	11.2
Total ..	1,166,016	542,099	46.5	404,050	34.7

The following figures taken from the statistics compiled by the Director-General of Commercial Intelligence and Statistics show the total employment in Assam plantations.

[1]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act (XXII of 1932) for the respective years.

[2]The two months are March and September which are considered as representative of the slack and busy season for the tea industry in Assam. It is assumed that the average of these months more or less represents the average for the year.

[3]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act, 1943-44.

TABLE 10

Employment on tea gardens in Assam, 1939-42[1].

(*Average daily number employed*).

Year	Number of plantations	Garden labour (permanent)	Outside labour (permanent)	Outside labour (temporary)	Total
1939	1,126	468,660	39,001	31,313	538,974
1940	1,130	477,150	30,967	28,063	536,180
1941	1,126	478,157	34,708	27,362	540,227
1942	1,128	464,168	31,746	25,753	521,667

It will be seen from the above table that the proportion of temporary labourers is very small, *viz.*, less than 5 percent in 1942. This is due to the fact that the labour is recruited from distant provinces and it is in the interests both of planters and workers that the employment should be as permanent as possible. Outside labourers in Assam are mostly descendants of ex-garden labourers who have purchased land and settled outside the garden limits. They are known as *Faltu* or *Basti* labourers. Local Assamese people do not like to work on the gardens as they consider it below their dignity to do so.

Settled and *Faltu* Labour.

The proportion of the settled and *Faltu* labour in the average daily working strength for two months in the tea gardens in Assam is shown in the following table[2] :—

TABLE 11

Proportion of settled and faltu labour in the average daily working strength 1939-44.

	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44
Settled labour	422,726	436,771	412,804	424,296	430,094	404,050
Faltu labour	61,472	52,145	53,864	53,006	38,143	31,350

Faltu labour shows a marked decline in 1942-43 and the following year as it was attracted by much higher wages to the large number of Defence works in Assam. Gardens in Surma Valley have usually adequate settled labour and do not depend on *faltu* labour.

Employment of Women.

An important feature of the plantation industry is that, in proportion to men, it employs more women than any other form of organised industry, as will be seen from the following table.

[1]Compiled from Indian Tea Statistics for the respective years.

[2]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years.

TABLE 12

Employment of women in the gardens in Assam, 1939-44[1].

Year	Number of labourers on book (both settled & *jhum*). (average of 2 months)	
	Men	Women
1938-39	299,442	271,446
1939-40	294,972	269,480
1940-41	273,292	255,061
1941-42	289,622	270,168
1942-43	262,567	260,621
1943-44	249,371	249,813

The reasons for the large employment of women workers are, "In the first place, that plantation work is only a special kind of agricultural work and is therefore more familiar to Indian women, the vast majority of whom live in rural districts; secondly, that facilities have been given to male workers to settle on, or in the vicinity of, the plantations, and to take their wives and families with them; and finally, that under the old system of labour contracts based on the principle of utilising every able-bodied person in the family for labour and of fixing the wage rates accordingly, many women had to seek employment in order to balance the family budget and although the contract system has been abolished, the wage system and the need for supplementary earnings still remain".[2]

Employment of children.

"There has been a gradual decline in the number of children (*i.e.* persons under 16 years of age) employed on tea gardens as compared with those living on them. From 1928-1929 to 1935-1936 the number of children employed on the tea gardens declined from 21.9 percent of the total number of children living on the gardens to 15 percent, and the daily average working strength fell from 14.4 to 10.5 percent. It is noteworthy that this decline followed the visit to Assam in 1929-30 of the Royal Commission on Labour in India, which recommended a minimum age of 10 years for employment on the tea gardens."[3] There has been practically no change in the percentages as shown in the table[4] below :—

TABLE 13

Employment of Children in Assam Tea Gardens, 1939-44.

Year	Total Number of children on gardens (Mean annual strength)	Children on the books (average of 2 months only)		Average daily working strength	
		Number	percent of total	Number	percent of total
1938-39	556,331	81,698	14.7	58,831	10·6
1939-40	567,836	84,597	14·9	62,659	11·3
1940-41	567,401	83,235	14·7	61,203	10·8
1941-42	566,115	104,085	18·4	68,965	12·2
1942-43	573,779	90,875	15·8	70,122	12·2
1943-44	572,351	86,520	15·1	65,855	11·5

[1]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years.

[2]Industrial Labour in India (I.L.O.), pp. 35-36.

[3]Ibid, p. 39.

[4]Compiled from Annual Reports on the working of the Districts Emigrant Labour Act for the respective years.

Geographical Distribution of Labour Population.

By far the largest number of labourers are located in the Assam Valley as is shown by the following table.[1]

TABLE 14

Geographical distribution of settled labour population on Assam tea gardens, 1943-44.

	Assam Valley		Surma Valley		Total	
	Number on the books (average of 2 months)	Average daily working strength	Number on books	Average daily working strength	Number on books	Average daily working strength
Men	163,506	127,159	68,847	52,295	232,353	179,454
Women	157,293	114,233	65,933	44,508	223,226	158,741
Children	54,223	42,482	32,297	23,373	86,520	65,855

Composition of Families.

Composition of families and the proportion of working and non-working members in them is important especially among plantation labour as the criticism of low cash wages per head is sought to be rebutted by the industry on the ground that the family income should be taken into consideration as gardens recruit on family basis and provide employment to all members of the families. The following figures furnished by the Indian Tea Association in its reply in this connection are interesting.

TABLE 15

Composition of families in 15 gardens of the Assam Valley.

	Total families	Working			Non-working			Total members
		Men	Women	Children	Men	Women	Children	
(a) Families of 1 member ..	1,566	920	344	32	57	95	118	1,566
(b) ,, ,, 2 members ..	2,511	1,991	1,833	239	184	230	545	5,022
(c) ,, ,, 3 ,, ..	2,410	2,111	1,895	409	205	304	2,316	7,230
(d) ,, ,, 4 ,, ..	2,147	1,958	2,000	528	333	431	3,338	8,588
(e) ,, ,, 5 ,, ..	1,515	1,630	1,441	612	259	364	3,269	7,575
(f) ,, ,, 6 ,, ..	891	997	1,018	536	228	231	2,336	5,346
(g) ,, ,, over 6 ,, ..	813	994	1,081	814	188	233	2,862	6,173
Total ..	11,853	10,601	9,602	3,170	1,454	1,888	14,785	41,500
Composition of an average family (persons)		.89	.81	.27	.12	.16	1.25	3.50

TABLE 16

Composition of families in all the gardens in the membership of the Assam Branch of the Indian Tea Association.

	Total families	Working			Non-working			Total members
		Men	Women	Children	Men	Women	Children	
	195,812	177,110	158,441	56,938	18,022	29,655	265,280	705,446
Composition of average family (persons)		.90	.81	.29	.10	.15	1.35	3.60

The close similarly between the composition of an average family in the above two tables is striking.

[1]Compiled from the Annual Report on the Working of Tea Districts Emigrant Labour Act for 1943-44.

TABLE 17

Composition of families in 117 gardens of the Surma Valley.

	Total families	Working			Non-working			Total members
		Men	Women	Children	Men	Women	Children	
(a) Families of 1 member	7,365	3,906	2,204	303	430	474	48	7,365
(b) ,, ,, 2 members	11,399	8,030	7,442	1,816	1,191	1,414	2,905	22,798
(c) ,, ,, 3 ,, ..	11,622	9,293	8,924	3,312	1,637	2,008	9,692	34,866
(d) ,, ,, 4 ,, ..	11,431	10,211	9,888	4,288	2,200	2,604	16,533	45,724
(e) ,, ,, 5 ,, ..	9,055	9,085	8,421	4,675	2,672	2,840	17,582	45,275
(f) ,, ,, Over 6 ,, ..	13,329	15,098	15,076	9,751	7,245	6,710	47,826	101,706
Total ..	64,201	55,623	51,955	24,145	15,375	16,050	94,586	257,734
Composition of average family (persons)		.87	.81	.37	.24	.25	1.47	4.01

It will appear from the above figures that the composition of an average family of labourers is 3.5 in the Assam valley and 4 in the Surma valley and that only 1.97 and 2.05 persons in such a family in the Assam and Surma Valleys respectively are workers or about half the number of persons in a family are, on an average, earning members for the whole of Assam.

Age composition of workers.

Information about the age composition of workers was furnished by 19 out of the sampled gardens in the Assam Valley and 8 in the Surma Valley. The following table shows the age composition of workers in these gardens.

TABLE 18

Age Composition of Workers.

	Assam Valley		Surma Valley	
	Number	%	Number	%
Those under 15	15,563	40·1	1,695	16·0
Those between 15 and 55	21,314	55·0	8,318	78·3
Those over 55	1,919	4·9	612	5·7
Total ..	38,796	100.0	10,625	100.0

The percentage of workers under 15 in the Assam valley is obviously wrong, as most of the managers concerned included all the persons under 15, whether working or not, in their reply. The Indian Tea Association in its reply gives the percentage as 14.3 which appears to be correct. It gives the percentage of workers between 15 and 55 as 84.7 and of those over 55 as 1.0 in this valley.

For Surma Valley, the Association gives the following figures based on the returns from 97 gardens :—

	Number	%
Those under 15	24,960	20.8
Those between 15 and 55	87,109	72.3
Those over 55	8,364	6.9
Total ..	120,433	100.0

Recruitment.

The Indian Tea Association in its reply has given a brief historical survey of the recruiting arrangements of the tea industry which is quoted below :—

" As early as 1859 it was realised that the importation of foreign labour was essential and a Tea Planters Association was formed for the purpose, among others, of organising a system of labour emigration from lower Bengal to Assam. The sudden expansion of the industry created a class of contractors who supplied labour to the tea gardens which were so rapidly being established, and the planter came in most cases to have no more connection with recruitment than was involved in paying for the labourer. The results were so disastrous, owing to competition between contractors, that in 1861 Government appointed a committee to enquire into the system under which the emigration of labour was conducted, which resulted in the passing of the first Inland Emigration Act, Act III (Bengal Code) 1863. Briefly, the provisions of this Act required that all recruiters should be licensed. Emigrants were to be registered before the Magistrate of the District in which they were recruited and they were sent to a Central Depot where they were placed on a contract which might extend to five years. No minimum wage was, however, fixed nor were conditions on tea estates controlled, and a second Act, Act VI (Bengal Code) of 1865, was passed to deal with these questions.

" Further Acts were Act II of 1870, Act VII of 1873—both Bengal Acts —and Act I of 1882, an Act of the Government of India. This remained in force till 1901 when Act VI was passed and this, in turn, with important modifications introduced by Act VIII of 1915, remained in force till 1933.

" Before the 1915 amending Act, there were two important methods of recruiting :—

(1) By contractors.
(2) By ' garden sirdars '.

" (1) A contractor was a man licensed for specified areas to supply labour to tea estates and other concerns in Assam. He might employ sub-contractors who were also to be licensed and for whose operations the contractor was responsible. Further, on the application of the contractor, or sub-contractors, licenses might also be granted to ' recruiters ' who were intended to work under the superintendence of the contractor and who did the actual engaging of labourers. These recruiters were called ' arkattis '. The origin of the name is doubtful, but it is supposed to have reference to the form of the licence issued to these gentlemen. There is, however a word ' arkatti ' meaning a pilot, which is much used in East Bengal.

" It is to be clearly understood that the ' arkattis ' under the old regime had a recognized position under the Act. In the majority of districts the term is now one of opprobrium.

" Certain Associations and some individual gardens employed what were known as Selecting Agents, whose duty it was to inspect the labourers brought in by contractors and select the best for the estates they represented. All contractors' labourers had to be passed by a Magistrate and were placed on contract to labour in Assam.

" (2) Side by side with this system, sirdari recruiting grew up and flourished. The ' garden sirdar ' was first mentioned in the Act of 1870. A ' garden sirdar ' may be described as an individual—himself an employee of an estate and a labourer—who is licensed to recruit other labourers on behalf of the estate. A system of sirdari recruiting had grown up, especially in Cachar, which was in contravention of Act III of 1863 and this system was in 1870 recognised and regulated. All emigrants had to be produced before a Magistrate and placed on a contract, and it was penal to remove any person to the labour districts without a contract.

Gradually the conception of a ' Local Agent ', whose duty it was to look after the interests of the garden sirdar, was evolved, and he was eventually recognised by the Legislature.

" The garden sirdar's recruit proved to be much more satisfactory than the arkatti-recruited labourer. Managers would select contented and settled members of their labour force and send them down, preferably to their home districts, to recruit people of their own class. The contractor and arkatti had no interest in the individual labourer once he had passed the Magistrate, but the sirdar had to live beside and work with his recruit on the garden, and he would be brought to account, on the one hand, by the recruit if the conditions prevailing on the garden had been misrepresented to him when recruited, and on the other, by the Manager if the labourers recruited proved to be unsuitable for employment on the garden.

" The arkatti system was generally open to abuse and the odium to which the industry was consequently exposed and the distinct advantages to be gained by recruiting through sirdars, led the tea industry itself to press for the abolition of the contractor, which was given effect by the Act of 1915.

" Meanwhile certain Associations had been formed, *e.g.*, the ' Tea Districts Labour Supply Association ', the ' Assam Labour Association ', and the ' Longai Valley Employers ' Recruiting Association ', to control Local Agents, and prior to 1891 there appears to have been in existence a body known as the General Coolie Recruiting Association which consisted of two or three Calcutta firms.

" On the 7th January 1892 a meeting was called by the Bengal Chamber of Commerce to discuss the formation of an Association to deal with the question of the supply of labour to tea gardens. The outcome of this meeting was that the Tea Districts Labour Supply Association was formed to take over the existing recruiting agencies and to supervise the work of garden sirdars under one organisation. The Assam Labour Association, however, still continued independently. The first recognition of the important part played by these Associations was the granting of certain concessions by Government in connection with their operations. For instance, notifications were issued exempting the Local Agent of such Associations from the necessity of producing recruits before a Magistrate for registration, provided that the Local Agent complied with certain conditions, the most important of which was that no recruit should be placed on a contract under the Act.

" In 1915 the Assam Labour Board was created to supervise the work of Local Agents on behalf of Government. The Board was given the power to make recommendations regarding the licensing of Local Agents, and the concessions noted above as applying to employees of certain Associations were extended to all Local Agents so appointed. The Board also appointed supervisors, whose duty it was to report on the fitness of candidates for the post of Local Agent, to inspect and report on local agencies, to submit recommendations for improvements to be made in the systems of recruitment, and finally, to bring to the notice of the Board any improper or illegal action in any way connected with the recruitment or forwarding of labourers to Assam. Meanwhile, the Assam Labour Association became amalgamated with the Tea Districts Labour Supply Association, whose denomination in 1917 was altered by the omission of the word ' supply '.

" The Act of 1915, as has been stated above, limited recruiting to garden sirdars holding a certificate from their employers and working under

a licensed Local Agent. An estate wishing to obtain a connection from a district from which it had not previously recruited, had no option but to send down a garden sirdar, who would be a stranger to the district and could not be depended on to bring in labour. Furthermore, it was now impossible for the employer, or anyone else, to assist in any way a labourer who was willing to emigrate, except by the expensive and cumbersome method of sending down a sirdar from the garden to sponsor the recruit ; and very few intending emigrants would have the means to go to Assam without assistance. The Act of 1915 had successfully removed the contractor from the scene, but the limitations it imposed on the method of recruitment were undesirable and not in the best interests either of the tea industry or of the labourer.

" In 1926, the Government of India addressed the Local Governments mainly concerned suggesting that the time might have come for the abolition of all control over recruitment, and that if this was inadvisable, considerable changes should be made in the law. The replies received agreed that the existing restrictions were unsatisfactory, but that some restrictions on recruiting were still essential. An Assam Recruitment Bill was accordingly drafted and submitted to the Local Governments, but before their criticisms were received the Royal Commission on Labour in India had been appointed, and it was decided to suspend further action till their report had been received.

" There is no need to discourse on the recommendations of what is more generally known as the Whitley Commission, but suffice it to say that they resulted in granting a greater measure of freedom in the system of recruiting than had hitherto been enjoyed by the industry. The Assam Labour Board, whose duties had been rather that of a policeman to watch over the activities of the Tea Districts Labour Association or any other recruiting organisation, was abolished, and many other improvements were also embodied in the present Tea Districts Emigrant Labour Act, XXII of 1932.".

The Tea District Emigrant Labour Act now regulates recruitment for Assam tea gardens. The main objects of the Act are to ensure that

(a) recruits are volunteers,

(b) they know the conditions of service and that estates adhere to the conditions of service set before the recruits,

(c) reasonable arrangements are made for forwarding the labourer from his home to Assam,

(d) the labourer is, unless he wishes otherwise, repatriated to his home at the cost of the estate after three years' service.

In normal times there is little or no recruiting to the Surma Valley.

In order to recruit labour, the planters have established, as stated above, an organisation called the Tea Districts Labour Association with its headquarters in Calcutta. The machinery of recruitment and forwarding is provided by this Association which also recruits on behalf of its members for the Dooars and the Terai in Bengal though no legislation for recruiting exists in that Province. 77 per cent. of the tea industry in North-East India does its recruitment through this Association.

The machinery of the Association includes 19 depots known as Local Forwarding Agencies, in addition to which there are 3 sub-agencies and 28 rest houses which form connecting links between the Local Forwarding Agencies and the recruiting areas further afield. There are also 14 Forwarding Agencies between the Local Forwarding Agencies and the tea districts, at which the emigrants take meals, and at certain of which a halt is made, in both cases according to a schedule approved by the Controller of Emigrant Labour. The

list of Local Forwarding Agencies and of Forwarding Agencies is given in Appendix V. It is at the Local Forwarding Agency that the sirdar receives his recruiting advance in cash, that a record of his activities is kept, and that later on, his prospective recruits for the tea estate are examined, medically from the point of view of health, and by the Local Forwarding Agents from the point of view of suitability for work on a tea garden. At the Local Forwarding Agency, recruits, having been passed as suitable labour for tea estates, are vaccinated and inoculated, are given outfits of clothing consisting of two blankets (one in summer), a dhoti/sari and various utensils and are finally put into the train, accompanied by peons to see them safely through to their respective tea estates.

Recruitment is carried out through recruiters, who fall generally into three classes :—

(a) *Garden Sirdars.*—Specially selected from labourers employed on tea estates who are sent to their home districts to engage labour for their gardens. These men may perhaps send up two or three batches of recruits before returning to their gardens at the end of the recruiting season which is generally about June.

(b) *Resident Sirdars.*—They are labourers from tea estates sent down to recruit in exactly the same manner as garden sirdars, but the difference is that these sirdars have no intention of returning to their gardens, and this is known to and accepted by their employers. They are, however, prepared to recruit labour for their gardens and a Sirdar's Diary, or History Sheet, is opened in their name, as in the case of garden sirdars in the Local Forwarding Agency. These resident sirdars are few in number.

(c) *Local Recruiters.*—These are individuals appointed locally in the recruiting district by the Local Forwarding Agent, and no tea garden has a lien on the services of such recruiters. They are employed on a commission basis to recruit labour for the pool which is established in each district in order to provide a labour nucleus for those gardens which have hitherto had no recruiting connection with certain districts in which they wish to start recruiting. Labourers recruited by local recruiters are, unless they express a wish to go to a particular estate, allotted to the pool for distribution in accordance with a ballot drawn under the direction of the Executive Committee of the Association. Pool recruiting, however, is not very extensive.

Garden sirdars and resident sirdars work as their employers' agents, *i.e.*, agents of the tea estate from which they have been sent to recruit, while local recruiters are agents of the Tea Districts Labour Association the interests of which are at one with those of the employing interests, *viz.*, the tea estates.

It may now be explained what happens when a garden sirdar is sent to recruit. A duly appointed sirdar is consigned by his garden manager to the Association's Forwarding Agency nearest to his garden, and he is passed on to the Local Forwarding Agency in the district in which he is going to recruit, which is almost invariably his home district. The sirdar is provided with a recruiter's pass issued by his garden manager for identification purposes. At the same time the garden manager sends to the Local Forwarding Agent a Question Sheet (Appendix VI) which provides him with all the information he requires regarding the recruiting potentialities of the sirdar. The sirdar is given a small advance at the Local Forwarding Agency, which will enable him to reach his home village. When he recruits a few people, he reports with

them to the Local Forwarding Agency. Whether or not a sirdar returns to the garden with his recruits depends on the success of his recruiting and if the sirdar has to recruit more labour to fulfil his quota he will be given a second advance by the Local Forwarding Agent, and will proceed once more to the recruiting fields ; this procedure is repeated until his garden manager's quota is complete. Generally speaking family parties are recruited. In normal times most employers will not recruit single males ; there has been some deviation from this policy during the last two or three years owing to shortage of labour but it has not worked satisfactorily and the tendency is now to return to the former policy of recruiting only families.

These garden sirdars are remunerated on a commission basis, but payment is not made until they have returned to their garden, no payment being made on this account by any Local Forwarding Agent, except perhaps in very special circumstances. The commission is usually Rs. 25 for a married couple, Rs. 15 for a woman and Rs. 10 for a bachelor.

It is, under the Act, incumbent on a Local Forwarding Agent, at the time of registering recruits for tea estates, to satisfy himself that each recruit is fully cognisant of the terms and conditions of his future employment and an Information Sheet (vide Appendix VII) in the appropriate vernacular is handed to the recruit. These information sheets in use in the different recruiting areas slightly varied from one another but have been recently made uniform. The information sheet which is compiled by the garden manager, gives a general picture of conditions obtaining on the garden from the point of view of health, housing, availability of paddy land, wages and so on. The information sheet is regarded as though it was a part of a contract between a garden manager and an assisted emigrant and if the latter were able to show that the actual terms of service on the garden differed from those indicated in the information sheet, to his detriment, he could successfully apply for his repatriation on the ground that he had been recruited by misrepresentation. As the Local Forwarding Agent is paid on a salary basis and does not draw a commission, there is little inducement for him to exercise any pressure upon or to mislead potential emigrants.

The recruit does not enter into any formal agreement to work for a particular period, but in practice only those who give a verbal assurance that they are willing to work for three years are forwarded. At the expiry of this period, provided the labourer has not, in the meanwhile, taken employment other than on tea estate, his empolyer at the time is liable for his repatriation at garden expense. There are, however, certain provisions in the Act whereby the labourer may apply for repatriation within three years and postpone or even waive his right of repatriation, as will be explained later. When the recruit is given the information sheet he is also given a copy in his own language of Chapter II of the Tea Districts Emigrant Labour Act, which details his rights to repatriation.

Recruiting is an expensive business. The main elements in the cost are the sirdar's commission, the rail expenses of the recruit and the cost of his maintenance till he reaches the garden, the maintenance of the organisation of the Tea Districts Labour Association and the cost of repatriation. The Tea Districts Labour Association's commission for recruiting is about Rs. 12 per adult. Before the war the cost of recruiting for Assam estates worked out, on an average, at about Rs. 65, plus an average repatriation cost of Rs. 17, plus sirdar's commission which varies from garden to garden. The total cost of recruiting before the war was about Rs. 100 per recruit. During the war the cost has risen and amounts to about Rs. 120 in all. It will be seen that the recruitment cost of a labourer almost equals his annual earnings.

Under the Tea Districts Emigrant Labour Act, three types of recruiting areas are contemplated.

(1) Areas, neither "controlled" under Chapter III nor "restricted" under Chapter IV, where the Act as a whole applies but where notifications under section 16 or 26 have not been published. In such areas, emigration certificates are issuable to assisted emigrants who have the ordinary rights of repatriation. There are no restrictions on methods of recruitment nor on methods of forwarding.

Such areas are the Bombay Province, the Punjab, Sind and the North-West Frontier Province.

(2) Controlled Emigration areas where Notifications under section 16 have been issued. Such areas are the whole of the following provinces :—

(i) Bengal (except the Chittagong Hill Tracts).
(ii) Bihar.
(iii) Orissa.
(iv) United Provinces.
(v) Central Provinces.
(vi) Madras.

In such areas, while there are no restrictions on the methods and the personnel of recruiting, the forwarding of assisted emigrants is subject to control.

(3) Restricted Recruitment areas where a section 26 Notification has been issued in respect of an area, *already a controlled area,* restricting the methods and personnel engaged in recruiting. No area so far has been declared a restricted area.

The Tea Districts Labour Association recruits labour in British India in the following seven Provinces :—

1. Bengal.
2. Bihar.
3. Orissa.
4. Central Provinces.
5. United Provinces.
6. Madras.
7. Bombay.

It does no recruitment at all in the Punjab, Sind and North-West Frontier Province.

Outside British India, it recruits labour in 24 Indian States with which it has working agreements. The recruitment in Indian States is also regulated by Rules. These Rules and the names of the States which have adopted them in their entirety or with some modification are given in Appendix VIII, which also gives the names of the States which have prohibited recruitment in their areas. In addition, a portion of the Bastar State is also closed to recruiting. There is no prohibited area in British India now. It may be emphasised that almost all the recruits are drawn from the aboriginal classes.

There are two types of emigrants which come under the Act.

(1) Assisted Emigrants ;

(2) Non-assisted Emigrants, *i.e.*, persons proceeding to Assam with assistance, but not being 'assisted emigrants' (*i.e.*, ex-garden labourers returning to Assam within 2 years),

Although every person who is to proceed to Assam with assistance is to be taken to a depot, there is nothing in the Act to compel that he shall be accommodated or fed ; it is only ' assisted emigrants ' who are required by law to be so treated, although the others get similar treatment for obvious reasons. Besides these recruits there are recruits who may be called ' non-Act ' or Voluntary, *i.e.*, persons who have proceeded to Assam at their own expense. The number of such persons is, of course, very small.

The table[1] below gives the relative strength of the assisted and non-assisted emigrants and their families from 1939 to 1944.

TABLE 19

Name of assisted and non-assisted emigrants and their families, 1939-44.

Year	Assisted	Non-assisted	Total
1938-39	31,193	5,652	36,845
1939-40	23,758	4,318	28,076
1940-41	17,509	3,679	21,188
1941-42	13,537	2,599	16,136
1942-43	60,561	5,880	66,441
1943-44	42,719	6,500	49,219

As regards the means of recruitment the garden sirdar is still by far the most important. In the last two normal years for recruitment, *viz.*, 1940-41 and 1941-42, only 227 and 250 souls were recruited otherwise than by the sardari system. In 1942-43 and the following year the figure went up to 4,725 and 3,215 respectively. Each sardar recruited, on an average, 7.5, 7.1, 9.02 and 5.21 adults in 1940-41 and the three subsequent years respectively.

Besides the Tea Districts Labour Association, recruitment is also done only in Bihar by Ranchi Emigration Agency, Empire of India & Ceylon Tea Company Agency and Assam Frontier and Budla Beta Agency, all of Ranchi. The total recruitment done by them in 1943-44 was 1,622 as against 40,304 souls recruited by the Tea Districts Labour Association. Even these recruits have to be forwarded either through the Tea Districts Labour Association or Medland Bose & Company who are the only two forwarding agents. Of the two agents, the Tea Districts Labour Association is by far the more important. In 1943-44 it forwarded 48,526 persons while only 693 were forwarded by the other concern.

The following table[2] shows recruitment by areas.

TABLE 20

Recruitment by areas, 1939-44.

(*Both assisted and non-assisted emigrants & their families.*)

Year	Bengal	Bihar	Orissa	C.P.	Madras	U. P.	Bombay	Total	For Surma Valley
1938-39	627	17,165	10,548	4,153	252	490	621	33,8566	711
1939-40	348	14,514	7,630	4,394	240	214	736	28,07	497
1940-41	592	10,533	5,095	4,038	196	153	581	21,188	574
1941-42	474	6,490	4,293	4,052	23	187	617	16,136	279
1942-43	1,863	33,201	16,246	12,503	527	613	1,488	66,441	3,600
1943-44	841	18,963	17,510	9,362	850	704	959	49,219	3,859

[1]Compiled from the Report on the Working of the Tea Districts Emigration Labour Act for the respective years.

[2]Ibid.

The figures for 1942-43 and the following year include labour recruited by the industry on behalf of the Government for the various military projects in Assam. It will be seen that about 50 per cent. of the total recruits are from Bihar, the areas next in importance being Orissa and the Central Provinces. These three provinces contributed between 92 and 94 per cent. of the recruits to Assam tea gardens during the above 6 years.

Pre-employment advance.

No pre-employment advances to labour are normally given. Sometimes a recruit is given a small advance to clear off his debt to the local money lender to enable him to leave the village. This bears no interest and is recovered in small instalments after he has been some weeks in the garden. When the recruit reaches the garden, he is given an *ex-gratia* advance, sometimes called a "settling allowance", of Rs. 2 or Rs. 3, together with the necessary utensils. This cash payment is not refundable. At the present time, in order to speed up recruitment, an additional *ex-gratia* payment of Rs. 5 is given to the recruit at the time of his recruitment. This is not refundable.

Freedom of Movement and Association.

There is no doubt that the labourer is now legally free to leave his garden and to seek employment in any garden he likes, but in actual practice he does not feel that he is free to move. It was stated by the labourers on several gardens that the chaukidar would not allow them to go even if they wanted to and this was admitted by some chaukidars also. It is undoubtedly a part of chaukidar's duty to observe movements to and from the lines. Even in cases of marriages, the consent of the managers concerned is generally taken to save trouble. It is true that if a labourer is determined to leave a garden, he will not be prevented from doing so, but such determination is rarely to be found in an ignorant and helpless aboriginal labourer. Though the "labour rules" mentioned by the Whitley Commission were terminated by mutual consent of the planters with effect from the 14th September 1938, and though there is now no bar to a manager employing any labourer who comes to him of his own free will without enticement, a labourer from another garden is not generally employed without a reference to his former manager. The labourer's liberty of movement is further affected by an agreement of 1939 among planters, which is known as the Brahmaputra and Surma Valley Local Recruitment Agreement, which prohibits one manager from deliberately enticing or recruiting labourers from another garden. An estate employing an *assisted emigrant* from another estate has to pay a transfer fee of Rs. 75 for the first year, Rs. 50 for the second year and Rs. 25 for the third year to the estate which recruited the labourer. The following observations of the Whitley Commission made in connection with the "labour rules" apply in a large measure to the local recruitment agreement referred to above. "The effect of this agreement is that no reputable planter attempts to obtain labour from another garden and it is against the accepted standards to engage labourers if there is reason to believe that they have left another planter. With the cost of recruiting as high as it is, such an attitude is intelligent and can, indeed, be defended as nothing more than the application of a principle familiar to other trade organisations. There is, however, no organisation on the workers' side to redress the balance ; the effect of the system is to diminish still further the liberty of the worker to dispose of his labour to the best advantage and to add to the restrictions upon his movements. The effect of this policy, combined with the lack of organisation on the part of the workers, has been to increase the temptation to resort to a policy of restrictions in order to retain labour."[1]

[1] Report of the Royal Commission on Labour in India, p. 377.

A Bill known as "the Assam Tea Estate Labourers' Freedom of Movement Bill" was proposed to be introduced in the Assam Legislative Assembly by Mr. Omeo Kumar Das, M.L.A. in 1938 but was dropped for the time being.

Access to Workers' Houses.

Outsiders are ordinarily required to take permission of the manager before they can enter the lines occupied by the workers but this prohibition does not apply to relatives and friends of the workers. Meetings of the labourers are not allowed in the gardens except for religious and social purposes. Planters claim the right of preventing outsiders from entering the gardens in the exercise of their right of private property. In this connection the following observations of the Whitley Commission are worth quoting as they are applicable in their entirety even today. "We do not regard as satisfactory the existing position where the workers are largely isolated from outside influence and any member of the public may be effectively prevented from approaching the workers' lines except with the manager's permission. On principle, it is objectionable that considerable areas included within the garden grants in which large numbers of workers are settled, can be entirely closed to any one who may be interested in their welfare. We have considered the point submitted to us, namely, the danger of interested people attempting to make use of the illiterate and ignorant labour force on the tea gardens for purposes unconnected with labour, but this is a risk to which every industry in India is exposed, and we think it better to face it than to continue a policy which inevitably gives rise to suspicion and is liable to be abused. We were informed that in the Surma Valley there are recognised public rights of way to all gardens lines, and in the Dooars where the labour force is similar in composition to that of Assam, the garden lease usually requires the planter to maintain roads from North to South and East to West which shall be open to the public. It is in the Assam Valley that the right of access is most needed and we recommend that steps should be taken to secure public contact with workers' dwellings on all plantations".[1]

The above recommendation was not implemented by the Assam Government for the following reason: "There can be no justification nowadays for the initiation of legislation to enforce indiscriminate public rights-of-way over private estates". Even in the Surma Valley, there are no recognised public rights-of-way in several of the sampled gardens. The present position, therefore, is that we find a mass of illiterate people living far away from their homes in settlements scattered all over Assam, practically segregated from outside influence, unorganised and unable to protect themselves while the employers have formed themselves into one of the most powerful and well-organised associations in the country. It is a well known fact that an average planter is extremely jealous of anybody trying to contact his labour and unless free access to workers' houses is secured, if necessary even by Government acquiring the land on which the houses are situated, the position of plantation labour is not likely to improve. It is mainly the absence of right of access to labourers' houses that is responsible for the continuance of the impression that they are not free.

Inspection of Gardens.

The Tea Districts Emigrant Labour Act does not definitely prescribe inspection of labour conditions on the gardens. The Assam Government has, however, issued executive instructions in 1933 for regular inspections of tea gardens by the Deputy Commissioners and such Sub-Divisional Officers as

[1] Report of the Royal Commission on Labour in India, p. 378.

have been invested with the powers of the Controller under Section 36 of the Act within their respective jurisdictions. These officers are enjoined to devote their attention primarily to satisfying themselves that the provisions of the Tea Districts Emigrant Labour Act are understood and are being observed. The Inspecting Officers may also enquire into, at their discretion, and, if necessary, note on matters of a more general nature, such as medical arrangements, water supply, vital statistics, level of wages in relation to tasks, etc. Each garden is to be inspected once in two years provided that an Inspecting Officer may make a selection at his discretion from a group of gardens under one controlling interest, if there is reason to believe that the system of management followed and the standards applied are uniform throughout the group.

As there is no statutory authority for these inspections, they have no binding force. The Controller, too, visits gardens primarily with the object of finding whether the provisions of the Tea Districts Emigrant Labour Act are observed or not, though he can look into other matters mentioned above as information about them will be useful to him in deciding an issue under Section 10 of the Act as regards the right to repatriation. It appears, however, that all these Inspecting Officers hardly have a talk with the labourers privately, *i.e.*, without the presence of the manager or supervisor, and that they collect the necessary information from the managers themselves. Even these inspections have shown a tendency to decline as may be seen from the following table[1], the reason obviously being the pre-occupation of Inspecting Officers with more important matters in war time.

TABLE 21

Inspections of Tea Estates, 1939-44.

Year	Number of estates	Number of estates inspected	Number of inspections made by			Total inspections made
			Controller	Deputy Commissioners	S.D.Os.	
1938-39	756	269	13	154	117	284
1939-40	771	370	41	204	166	411
1940-41	786	285	11	147	127	285
1941-42	726	198	6	79	139	224
1942-43	723	116	1	50	65	116
1943-44*	669	109	8	44	57	109

* Does not contain figures for Kamrup district which has only 28 gardens.

N. B.—Estates employing 50 or more labourers have been shown in Col. 2. Estates employing less than 50 workers are not inspected unless there is reason to suppose that they employ emigrant labourers.

As the labourers are not able to stand on their own legs, it is all the more necessary that there should be a competent inspecting authority to look into their grievances. It is doubtful if the Controller, Deputy Commissioners and Sub-Divisional Officers have sufficient time to do a proper inspection of labour conditions on gardens. It would, therefore, be desirable for the Central Government to appoint Labour Welfare Officers of suitable status to inspect the gardens and to report on the labour conditions to it.

[1] Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years.

Working of the Tea Districts Emigrant Labour Act.

The Act applies only to assisted emigrant labourers who go to the tea estates in Assam for work. Of nearly 12 lakhs of persons living in the tea estates of Assam, the great majority are not covered by the provisions of the Act. Whatever may have been the conditions in the early days, the emigrants are now generally aware of their rights under the Act—particularly the right to repatriation. The working of the Act is supervised by the Controller of Emigrant Labour. His principal duties are (1) the enforcement of the provisions relating to repatriation from Assam, (2) the supervision of the forwarding routes, *e.g.*, inspection of depots, trains, vessels, etc., and (3) the supervision of recruiting. He has no control over conditions of labour and life in the tea garden in Assam.

The provisions of the Act and of the Rules thereunder are properly observed but a few cases of evasion occasionally take place. Ex-garden labourers returning to Assam within two years are not entitled to certificates of emigration and therefore have no right of repatriation. They pose themselves as fresh recruits solely for the purpose of enjoying the benefit of the right of repatriation and other consequential rights that belong to assisted emigrants. A good many of such cases escape detection, but the cases that came to notice were 169 in 1944. Cases of illegal and fraudulent recruitment are mostly reported by the Local Forwarding Agents, as a result of independent inquiries made on suspicion, to the authorities exercising the powers of the Controller. Such cases ranged from 8 to 22 in the six years from 1939 to 1944. As recruitment of families is preferred by the tea gardens, men and women who are not legally married sometimes go to Assam posing as husband and wife and are recruited as married couples by the sirdars. Recently one sirdar did not even hesitate to misdescribe his own wife as the wife of another labourer !

One of the most vital provisions in the Act is the right of repatriation of the labourer after a period of three years in a garden at the cost of the employer. Even before the expiry of three years from his entry into Assam, an emigrant labourer can apply to the Controller for repatriation under Section 10 (1) of the Act on any of the following grounds, namely,

(a) that his state of health makes it imperative that he should leave Assam, or

(b) that his employer has failed to provide him with work suited to his capacity at the normal rate of wages for that class of work, or

(c) that his employer has unjustly withheld any portion of any wages due to him, or

(d) any other sufficient cause.

He can also, before the expiry of one year from his entry into Assam, apply under Section 10(2) of the Act to the Controller for a declaration of his right to repatriation on any of the following grounds, namely,

(a) that he was recruited by coercion, undue influence, fraud or misrepresentation, or

(b) that he was recruited otherwise than in accordance with the provisions of the Act and the rules made thereunder.

It should be added, however, that since the introduction of the Act, only 11 cases under Section 10(1) in 1937-38 and one case under Section 10(2) in 1936-37 were reported to the Controller or the District Magistrates by the

labourers. Out of the 11 cases, 6 were settled by agreement and 5 were decided in favour of the labourers. The one case under Section 10(2) was decided in favour of the employer. The number of emigrants with their families repatriated by the managers themselves under this Section was 91 in 1939 ; 57 in 1940 ; 53 in 1941 ; 33 in 1942 ; 32 in 1943 and 15 in 1944. All of them except two were repatriated under Section 10(1) for ill health. Out of the total of 17,351 souls (*i.e.*, 10,056 assisted emigrants and 7,295 members of their families) repatriated by their employers during 1943-44, 15,888 (including 6,617 dependents) were repatriated under Section 7 (after completing their three years' service). The reasons for the rest are given below :—

	Emigrant	Dependents.
Under Section 8 (on dismissal)	6	2
Under Section 9 (families of deceased labourers)	412	438
Under Section 10(1) (ill-health)	7	8
Under Section 10(2) (illegal recruitment)	..	..
Unsuitable for garden work	9	4
Mental deficiency	1	..
Abscondence of husbands from tea estates	3	1
At labourer's own request	347	225
	785 +	678
Total ..	1,463	

Troublesome labourers are sometimes repatriated within 3 years and shown as unsuitable for garden work.

An emigrant labourer can, under Section 14 of the Act, by agreement with his employer, postpone his exercise of the right of repatriation or may waive it conditionally or unconditionally, but no such agreement shall be valid unless it is in writing and in the prescribed form and has been made not more than one month before the right of repatriation arises. The number of persons who postponed their rights of repatriation by executing agreements were 9,224 in 1939, 12,661 in 1940, 14,937 in 1941, 8,008 in 1942, 9,713 in 1943 and 7,842 in 1944. The Government of India have not yet prescribed an authority before whom the agreement is to be signed, as contemplated by the proviso to Section 14(1) of the Act. In the absence of such a prescribed authority, the agreements are made before the managers and it is likely that at least some of the labourers may be induced to sign the agreement without knowing its full implication. Where, however, a right to repatriation arises in respect of a widow, an agreement by the widow has to be ratified, as required by Rule 60(1) of the Government of India Rules, by the District Magistrate or other Magistrate appointed by him in this behalf and if he is satisfied that the widow understands the terms of the agreement and her rights in regard to repatriation, he ratifies the agreement by endorsing a statement to this effect upon it. Some of the managers have been appointed as Honorary Magistrates for this purpose and it is not likely that some of them ratify the agreement as a matter of routine.

The number of emigrants with their families who were repatriated after completion of three years' term and of emigrants with their families who were

repatriated within three years' under the other provisions of the Act, etc., during 1939-1944 are shown in the following table[1] :—

TABLE 22

Number of emigrants with their families repatriated, 1939-1944.

Year.	after 3 years.	within 3 years.	Total.
1938-39	12,792	1,207	13,999
1939-40	18,070	909	18,979
1940-41	19,973	1,082	21,055
1941-42	16,853	745	17,598
1942-43	15,498	1,055	16,553
1943-44	15,888	1,463	17,351

If a repatriated labourer returns within the next two years, he is not eligible for repatriation. This restriction of the right of repatriation seems unnecessary. In fact, recently when difficulties were experienced in recruitment, the employers themselves volunteered to extend the right of repatriation to such labourers also as had worked in the tea estates before. There have been occasionally cases of labourers who have died *en route* to Assam. The families of such labourers do not have a right of repatriation as this right arises only after the labourer takes employment in a tea estate, vide section 9 of the Act. While the Act regulates the routes, conditions of travel and arrangements for food of labourers proceeding to tea estate, no such provisions exist for repatriated labourers. It would seem that while every care is taken to see that the recruited labourer reaches the estate safely, no interest is taken at all in seeing whether he returns home safely after his work in the tea estates.

There is no provision in the Act for regulating accommodation, sanitation, water supply, medical treatment, wages, hours of work, educational facilities, rest and recreation and other welfare arrangements for labourers employed in the tea estates. While all Local Forwarding Agencies are required to maintain a register showing the number of persons recruited, accommodated, and forwarded in a day, no such register is required to be maintained by the forwarding depots *en route* to Assam. It is, therefore, difficult to know whether in any of these forwarding depots, persons have been accommodated in excess of the provision made. It may sometimes happen that labourers from the neighbouring districts of Bengal are taken to tea estates in Assam and entertained as local labourers, even though Bengal is a recruiting area and cess is payable on labourers from Bengal taken to tea estates in Assam. At present, a manager is required to maintain a register only in respect of labourers covered by the Act. If a register is maintained to show also the details of the non-emigrant labourers employed in tea estates, it will be possible to find out whether any labourer who should have been treated as an emigrant labourer has been treated as a non-emigrant.

The executive staff provided for the administration of the Act is not adequate. It is impossible for the Controller single-handed to go round and inspect recruiting agencies and depots in all the recruiting Provinces over the greater part of India and at the same time to visit the tea gardens in Assam. One Deputy Controller of Emigrant Labour has been recently appointed, but it would be desirable to have two Deputies, one to assist the Controller in inspecting the tea estates and the other in inspecting the recruiting agencies and depots, especially as the Controller is also working as the

[1]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years.

Labour Commissioner and Chairman of the National Service Labour Tribunal, Assam. It is also high time to consider the appointment of a separate Welfare Officer for the tea estate labour population in Assam which is nearly 12 lakhs in number. The emigrant labour cess fund, out of which the pay of the Controller and his staff is now met, should be easily able to meet the cost of the above additional staff. Even though the Act permits the levy of a cess up to Rs. 9 per head, the rate of cess levied is generally Rs. 3 to Rs. 4. Even at the low rate of cess now levied, there is a considerable surplus under the fund. The closing balance in 1943-44 was Rs. 63,234-5-7 plus Rs. 3,31,250 in investments. There is no object in effecting these savings when they can be advantageously utilised by the creation of a larger organisation to supervise the recruitment, employment, and welfare of emigrant labourers.

The Indian Tea Association's view about the Act is that it does not cause any practical inconvenience and that it may continue to remain in force in Assam. The Act has been very useful in securing repatriation and proper arrangements for the transmission of labourers from their distant homes to Assam. One of the chief reasons for Government interference in emigration to Assam was the very high death rate among labourers during transit. Thanks to the effective medical and feeding arrangements now made by the two forwarding organisations, the death rate in transit is negligible. During the five years ending the 30th September 1943, a total of 1,65,697 souls were forwarded to Assam and the total deaths *en route* were only 74 or less than ½ per thousand. 39 of these were of infants. There was, however, a considerable rise in mortality in 1943-44 and the death rate was 1 per thousand, the total deaths being 49 including those of 21 infants. It is not necessary to extend the Act to areas not at present covered by it, as the labour force in these areas comes from comparatively short distances and the fact that it could, therefore, return home without undue difficulty provides its best protection.

WAGES AND EARNINGS.

The question of wages and earnings of workers is very important everywhere and specially so in Assam tea gardens where it has attracted public attention for considerable years.

Piece-rate System.

(i) Wages for field work other than plucking.

In Assam tea gardens payment is generally based upon piece rates. There are two kinds of piece work system in vogue. The older system which is still very common, especially in the Surma Valley, is the *hazira* and *ticca* system. Each man who turns out to work is allotted a certain task on the completion of which he earns his *hazira* or daily payment. The word *hazira* is also applied to the task. The task is generally so calculated as to occupy an average labourer about five hours. Pruning is hard work and the pruning task may take even more time. The labourer usually completes the task within the day. If it is not completed he either gets proportionate payment or else he is allowed to complete the task the next day. The task is, to some extent, adjusted to capacity ; children just learning to work, convalescent people and mothers who have to nurse their infants are frequently given a lighter task than the other labourers. Labourers on most sampled gardens, however, complained that their task was heavy. It is not possible to standardise the task for the normal *hazira* as it has to be adjusted according to the nature of the soil, the method of working, the condition of the estate, etc., and the tasks cannot obviously be uniform throughout a district or even throughout all the portions of an estate.

For example, in hoeing which provides work for men almost throughout the year, the quantity of work done is measured by the area hoed and the measuring unit in use is the *nal* which is 12 feet in length. If the soil is easy, a man may be asked to do 30 square *nals* for his *hazira*, whereas if the soil is hard, the task may be reduced to 25 square *nals*. Then again a good deal depends on whether the garden is being kept clean or allowed to become jungly and the task may have to be varied to meet this factor. Even so, there is a bewildering variety in the size of *haziras* in the gardens. To quote a few instances from some of the sampled gardens, the task per anna varies from 5 to 14 *nals* for light hoeing, from 15 to 40 bushes for light pruning and from 20 to 40 bushes or more for forking. On one estate in Cachar, it was found that even pruning and forking tasks were fixed in terms of *nals*. There seems to be no logical basis for the fixation of the task, except what the manager in his experience thinks it equitable to fix. Most of the labour troubles are often due to the size of the task.

When a man has completed his *hazira*, he may stop work or continue it if the garden is in a position to offer him more work. In the latter case, he will undertake another set task on the completion of which he earns what is called his *ticca*. Here too, generally speaking, if he embarks on a *ticca* he will finish the set task which is a smaller one than the *hazira*. In busy seasons, he may even have the option of doing a second *ticca*. The word *ticca* seems to be a corrupt form of *theka* or contract and is applied not only to overtime work but to extra-plantation work given on contract such as wood-cutting, repairs to houses and roads, etc. Work done on Sunday and holidays is also considered as *ticca*, especially in Surma Valley, and is paid for in cash on the same day. Commission paid to sirdars is also called *ticca* in a few gardens. Although it is not incumbent on the manager of an estate on the *hazira* system to offer a *ticca*, in practice the labourer gets an opportunity to earn *ticca* on the majority of gardens, though the extent of *ticca* earning is usually small. There are obvious limitations to the possibility of *ticca* earnings. It would be unsound business to do more hoeing or pruning than is absolutely necessary. Again, the larger the labour force the less the opportunity for earning *ticca*. The amount of work to be done in a garden also varies from month to month. The best time to earn *ticca* is the plucking season and the worst is the cold weather.

Though the task varies from place to place, the *hazira* rates are more or less uniform throughout a tea circle of which there may be several in a civil district. These rates are generally 6 annas for men, 5 annas for women and 3 to 4 annas for children in the Lakhimpur district and are less by one anna in each case in the rest of the Assam Valley. In the Surma Valley, the *hazira* rates now are generally 5 annas for men, 4 annas for women and 2 to 3 annas for children, though some gardens still pay the old rates of 4, 3 and 2 annas respectively. This uniformity is achieved by agreements among planters. The agreements are effected through district or circle committees which fix the level of wages for their area. "Each planter fixes his own piece-rates, but in doing so, regard is paid to the agreement arrived at by the committee in order that the wages of his employees may not be appreciably higher than the agreed level. There is thus none of the attractions of higher wages to tempt the worker to transfer his services from one garden to another. On principle there can be no more objection to the wage agreements than to the labour rules of the Indian Tea Association but we would again point out that the workers suffer owing to the absence of any organisation on their side to counteract the powerful combination of their employers".[1]

[1] Report of the Royal Commission on Labour in India, p. 386.

The other system of wage payment in force on some gardens is the unit system. Under this system, the labourer is not given a specific task but, up to a certain limit, is allowed to do as much or as little as he likes. A unit is usually expected to be finished in one hour and the amount to be earned for each unit is generally one anna. At the end of the day, the labourer is credited with the amount corresponding to the number of units of work done. Even in this system, a labourer is required to do a reasonable amount of work every day and working only one or two units is not countenanced by the management ; also estates which have excess labour often put a ceiling to the amount any one labourer can earn in one day.

On the unit system all work is paid for at the same rate, whereas on the *hazira* system one rate is given for *hazira* and an enhanced rate for *ticca* or real overtime work (and not for work given on contract) on the analogy of overtime earnings in other industries. The principal advantages of the unit system over the *hazira* system lie (a) in the simplicity of accounting, both from the point of view of the estate and of the labourer himself who likes to know just what he may expect to receive each week at the pay table and (b) in its elasticity, though within certain limits. It was, however, stated by a few managers that the labourers preferred the *hazira* system as they received a higher rate for *ticca* work. In view of the bewildering variety of the *hazira* and the loose manner in which the word " *ticca* " is used, it will be much better if the old *hazira* and *ticca* system is abolished altogether and the unit system adopted throughout the province.

Modified Unit System.

A modification of the *hazira* and *ticca* systems was also found in some gardens in the Assam Valley. These gardens, after completion of the standards task, offer extra work at so much per anna, the labourer doing as much or as little as he likes.

(ii) Plucking.

Plucking is paid for on a slightly different basis. In the early part of the season, and until bushes are flushing freely, a full *hazira* is generally given irrespective of the leaf brought in, provided, of course, a certain amount of work is done. Thereafter the *hazira* is usually a fixed one, until towards the end of the season, when again a full *hazira* may be given irrespective of the leaf plucked. Even gardens on unit system pay a *hazira* or daily rate for tipping, *i.e.*, plucking at the beginning and end of the season. Otherwise payment is by weight.

Plucking is done very largely by women and it is on plucking that good earnings are made. It is by no means uncommon for a good plucker to earn up to Rs. 1-4-0 a day during the main plucking season. Generally speaking, plucking begins in April or May and continues up to November or December. It is not possible to lay down a standard rate for use in all gardens, for there are many factors which affect the economic rate of payment for a seer of leaf plucked. Some gardens always pluck fine, producing tea of a high grade, while other gardens always pluck coarse and get lower prices for their tea, making up for this by the extra yield. From one and the same garden, the plucking may be at one time fine and at other times coarse.

As the labourer plucks she puts the leaf in a wicker basket and it is in due course taken to the factory and weighed in her presence. In flush season, leaf is weighed two or three times a day. The weight is not generally read out by the clerk in charge of weighment but he only announces the money earned. The rate of payment is usually 1 anna for 5 pounds of leaf in Assam

Valley and 1 anna for 8 or 10 pounds in the Surma Valley which generally goes in for coarse plucking. There is a great demand for labour in the plucking season as the leaves get bad if they are not plucked in time. Many gardens give higher wages to *faltu* labour to attract them for plucking. Indian-owned gardens depend more on *faltu* labour for plucking, than European-owned Plucking season also coincides with sowing season and there is always a shortage of labour.

Formerly arbitrary deduction for moisture was very common in Assam tea gardens. The Indian Tea Association, however, went into the whole question in 1938 and recommended to its members the discontinuance of this practice on the ground that it could easily give rise to misunderstanding and was moreover of doubtful legality. The main recommendations were—

(i) that the use of a specially calibrated scale should be discontinued at once, and

(ii) that all deductions for moisture should be discontinued, though the deduction for the weight of the basket would naturally continue.

These recommendations have been implemented by the great majority of the gardens in the Association. The practice, however, still persists in some gardens and a few even out of these gardens which have stopped it are making up for the alleged loss by giving less rates on rainy days.

Plucked leaf is usually carried on their heads to the factories by the pluckers without payment. In some gardens the leaf was carried in a lorry formerly when lorries were available.

Labourers get Re. 1 to Rs. 1-4-0 in plucking season and half or less than half this amount in other seasons. One experienced planter considered this as iniquitous and thought that the rates of wages in other seasons should be raised.

Time-rate System.

Cases of time earnings are those in which it is impracticable to prescribe a definite task. An example is tipping as mentioned above. Choukidars and sardars are usually paid a monthly wage.

Absenteeism.

Absenteeism is an important factor in the Assam tea gardens. The Assam Labour Enquiry Committee of 1921-22 worked out the percentage of the average daily working strength to the total number of labourers on the garden books for 8 selected years and came to the conclusion that the efficient working force for each of these years was about 75 per cent. of the total.

The average percentage attendance in 37 of the sampled gardens was 73 in 1939 and 69 in 1944. The percentage of attendance was less in the Indian-owned gardens, *viz.*, 61.2 in 1939 and 57.2 in 1944. The following table shows the frequency distribution of these 37 gardens in specified groups of average percentage attendance in 1939 and 1944.

TABLE 23

Frequency distribution of gardens in specified groups of average percentage of attendance in 1939 *and* 1944.

Average percentage attendance	1939		1944	
	Number of gardens	Number of workers on books	Number of gardens	Number of workers on books
50% and less	1	615	2	3,495
51%—55%	...	..	4	2,293
56%—60%	2	3,768	2	482
61%—65%	6	4,433	5	5,030
66%—70%	5	5,454	11	15,899
71%—75%	11	17,064	5	8,824
76%—80%	7	9,474	5	7,533
81%—85%	5	8,227	3	4,780
Total ..	37	49,035	37	48,336

The following table compiled from the Annual Reports on the Working of the Tea Districts Emigrant Labour Act for the last 6 years shows that there has been no appreciable change in the percentage of absenteeism :—

TABLE 24

Absenteeism among settled labourers in Assam gardens 1939-44.

Year	Total number of labourers on books (average of 2 months)	Average daily working strength	Percentage of attendance	Percentage of absenteeism
1938-39	565,427	422,726	74.8	25.2
1939-40	570,354	436,771	76.6	23.4
1940-41	539,031	412,804	76.6	23.4
1941-42	588,163	424,296	72.1	27.9
1942-43	560,525	430,094	76.7	23.3
1943-44	542,099	404,050	74.5	24.5

The Indian Tea Association in its reply has given the percentage of attendance in 128 gardens of Surma Valley as 68.1. It challenges the Controller's figures as unscientific in the sense that they are based on two months only and assume that the average of the best and worst months is likely to be the average of the whole year. On the other hand, it admits that it is by no means certain that the actual figures submitted by the 128 gardens can be regarded as accurate. As observed by the Whitley Commission, " the constancy of the published figures for September and March makes it unlikely that there have been substantial changes in the percentages attending at other seasons. In considering the extent of absenteeism in the Assam tea gardens, it is important to bear in mind the subsidiary occupations of the garden worker. The most important is private cultivation, but household duties in agricultural surroundings, such as the purchases of weekly supplies from the market, the collection of firewood, the grazing of cattle, the threshing of corn, etc., make a considerable demand on the worker's time and particularly on that of the women. Absenteeism is, therefore, to some extent, inevitable ".[1] In addition to the above reasons, it may be stated that absenteeism is also caused by debility due to malaria and anaemia and, at present, malnutrition.

[1] Report of the Royal Commission on Labour in India, p. 388.

Earnings.

The following table shows the average monthly earnings of settled labourers, district-wise, in 1939 and 1944 of 38 sampled gardens. The earnings were obtained by dividing the total monthly cash earnings by the average daily working strength.

TABLE 25

Average monthly earnings in selected tea gardens in Assam in 1939 *and* 1944.

District	1939			1944		
	Men	Women	Children	Men	Women	Children
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
ASSAM VALLEY						
Lakhimpur ..	10 6 10	9 4 10	6 2 11	12 0 5	11 1 10	7 4 5
Sibsagar ..	8 3 11	7 5 9	5 3 0	11 11 6	10 15 6	6 7 11
Nowgong ..	9 7 7	8 10 6	4 12 9	9 12 11	9 8 2	5 11 1
Darrang ..	9 0 4	6 12 8	5 0 6	11 6 6	8 9 10	5 14 10
SURMA VALLEY						
Sylhet ..	7 8 10	5 5 8	4 2 5	9 5 2	7 3 2	5 3 0
Cachar.. ..	7 1 2	5 9 1	4 3 3	8 10 2	6 6 10	5 1 7

The following table shows the frequency distribution of these gardens on the basis of the monthly earnings of their workers in 1944 :—

TABLE 26

Frequency distribution of sampled gardens in specified groups of average monthly earnings of workers, 1944.

Earnings Group	Men	Women	Children
Less than Rs. 4			3
Between Rs. 4 and Rs. 5			5
Between Rs. 5 and Rs. 6		4	10
Between Rs. 6 and Rs. 7		5	12
Between Rs. 7 and Rs. 8	1	3	4
Between Rs. 8 and Rs. 9	8	9	2
Between Rs. 9 and Rs. 10	8	6	1
Between Rs. 10 and Rs. 11	4	1	..
Between Rs. 11 and Rs. 12	5	4	1
Between Rs. 12 and Rs. 13	7	2	..
Between Rs. 13 and Rs. 14	2	2	..
Between Rs. 14 and Rs. 15	2	..	..
Between Rs. 15 and Rs. 16	1	1	..
Between Rs. 16 and Rs. 17	..	1	..

The following four tables compiled from the Annual Reports on the Working of the Tea Districts Emigrant Labour Act show the average monthly cash earnings per worker on the books and average monthly wages of settled and casual labourers separately for men, women and children and for Assam and Surma Valleys for the last 11 years. Average monthly wages were not given in the Reports previous to 1939-1940

TABLE 27

Average earnings of settled labourers on the tea estates in the Assam Valley for the months of March and September, 1934-44.

Year	Average monthly cash earnings per worker on the books			Average monthly wages			Average daily cash earnings per day or part of the day worked		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1933-34	7 7 7	5 14 4	4 3 8	..	..	..	0 5 10	0 4 10	0 3 5
1934-35	7 2 11	5 7 3	3 5 3	..	..	..	0 5 6	0 4 6	0 3 1
1935-36	6 13 2	5 10 4	4 0 2	..	..	..	0 5 4	0 4 4	0 3 2
1936-37	7 3 5	5 13 7	4 4 7	..	..	..	0 5 6	0 4 8	0 3 4
1937-38	7 1 9	5 13 4	4 3 4	..	..	..	0 5 4	0 4 7	0 3 4
1938-39	7 15 3	6 7 5	4 9 2	..	..	..	0 5 8	0 5 2	0 3 5
1939-40	7 14 1	6 3 8	4 7 9	9 8 7	8 8 4	5 14 6	0 5 11	0 5 2	0 3 4
1940-41	8 2 1	6 8 4	4 10 11	10 0 11	8 11 6	6 4 9	0 5 10	0 4 9	0 3 7
1941-42	8 11 5	7 2 10	5 4 4	10 15 3	10 7 10	6 14 10	0 7 0	0 5 10	0 3 10
1942-43	8 10 4	6 15 4	5 4 2	10 9 0	9 7 0	6 11 2	0 7 2	0 5 10	0 4 0
1943-44	9 10 3	7 13 1	5 14 10	12 6 4	10 12 3	7 9 1	0 8 2	0 6 10	0 4 8

NOTE : 1.—The figures in columns 2, 3 and 4 have been obtained by dividing the total monthly cash earnings by the total number of labourers on the books.

NOTE : 2.—The average monthly wages (columns 5, 6 and 7) have been obtained by dividing the total monthly cash earnings by the average daily working strength.

TABLE 28

Average earnings of Faltu or Basti Labourers on tea estates in the Assam Valley for the months of March and September, 1934-44.

Year	Average monthly cash earnings per worker on the books			Average monthly wages			Average daily cash earnings per day or part of the day worked		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1933-34	4 7 3	4 7 10	2 11 3	..	..	..	0 4 3	0 4 1	0 2 10
1934-35	4 6 11	4 6 9	2 11 11	..	..	..	0 4 6	0 4 1	0 2 9
1935-36	4 9 6	4 9 2	2 14 2	..	..	..	0 4 5	0 4 1	0 2 8
1936-37	4 9 6	4 4 6	3 0 7	..	..	..	0 4 6	0 4 1	0 3 2
1937-38	4 11 10	4 7 2	3 6 2	..	..	..	0 4 7	0 4 1	0 3 3
1938-39	5 2 1	5 1 10	3 5 1	..	..	..	0 5 2	0 4 5	0 3 2
1939-40	4 15 1	5 1 9	3 5 7	8 4 9	8 12 2	5 6 5	0 4 10	0 4 8	0 3 4
1940-41	4 14 2	5 15 0	3 0 10	7 11 8	7 10 2	5 1 4	0 5 0	0 4 10	0 3 2
1941-42	5 15 10	5 10 1	3 8 11	9 8 5	9 0 2	6 0 0	0 6 0	0 4 9	0 3 5
1942-43	6 6 5	5 13 7	3 13 5	10 15 6	9 11 11	6 2 0	0 6 11	0 5 8	0 3 8
1943-44	7 4 7	6 4 3	4 3 3	12 5 8	10 15 6	6 6 4	0 8 7	0 6 6	0 4 4

NOTE: 1.—The figures in columns 2, 3 and 4 have been obtained by dividing the total monthly cash earnings by the total number of labourers on the books.

NOTE: 2.—The average monthly wages (columns 5, 6 and 7) have been obtained by dividing the total monthly cash earnings by the average daily working strength.

TABLE 29

Average earnings of settled labourers on tea estates in the Surma Valley for the months of March and September, 1934-44.

Year	Average monthly cash earnings per worker on the books			Average monthly wages			Average daily cash earnings per day or part of the day worked		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1933-34	5 6 3	3 11 10	2 10 2	..	..	..	0 3 8	0 2 7	0 1 10
1934-35	5 10 9	3 12 4	2 11 5	..	..	..	0 3 4	0 2 10	0 2 1
1935-36	5 12 11	4 0 1	2 13 7	..	..	..	0 3 10	0 2 9	0 2 0
1936-37	5 10 11	4 1 10	2 12 9	..	..	..	0 3 9	0 2 9	0 1 11
1937-38	6 2 5	4 4 1	2 15 2	..	..	..	0 4 0	0 2 11	0 1 11
1938-39	6 5 6	4 5 6	3 2 2	..	..	..	0 4 3	0 3 3	0 2 3
1939-40	6 4 7	4 7 3	3 1 8	8 0 0	6 4 11	4 6 4	0 5 0	0 4 2	0 2 9
1940-41	5 8 10	4 12 4	3 3 5	6 15 2	6 13 0	4 7 3	0 5 8	0 4 9	0 2 10
1941-42	6 15 0	5 7 1	2 11 0	9 2 8	8 3 4	5 0 7	0 5 11	0 4 11	0 3 2
1942-43	7 4 3	5 7 2	3 8 6	9 7 9	7 11 3	4 11 6	0 6 8	0 4 9	0 3 3
1943-44	7 13 7	5 10 6	3 12 10	10 5 4	8 6 1	5 4 0	0 6 7	0 5 2	0 3 2

NOTE : 1.—The figures in columns 2, 3 and 4 have been obtained by dividing the total monthly cash earnings by the total number of labourers on the books.

NOTE : 2.—The average monthly wages (columns 5, 6 and 7) have been obtained by dividing the total monthly cash earnings by the average daily working strength.

TABLE 30

Average earnings of Faltu or Basti labourers on tea estates in the Surma Valley for the months of March and September, 1934-44.

Year	Average monthly cash earnings per worker on the books			Average monthly wages			Average daily cash earnings per day or part of the day worked		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1933-34	4 2 10	3 10 10	2 1 2	..	..	..	0 2 5	0 2 4	0 1 5
1934-35	4 5 1	3 5 8	2 2 7	..	..	..	0 2 9	0 2 5	0 2 0
1935-36	4 4 8	3 5 3	2 2 4	..	..	..	0 3 0	0 2 5	0 1 8
1936-37	4 8 7	3 3 2	2 3 7	..	..	..	0 3 0	0 2 5	0 1 7
1937-38	4 14 3	3 1 5	2 3 8	..	..	..	0 3 5	0 2 7	0 1 11
1938-39	4 7 5	3 7 3	2 5 3	..	..	..	0 3 1	0 2 8	0 2 1
1939-40	4 2 8	3 7 3	2 6 5	7 5 9	5 8 3	4 6 0	0 4 8	0 3 8	0 2 4
1940-41	4 10 8	3 7 10	2 6 4	7 11 9	5 14 11	3 12 11	0 5 1	0 4 2	0 2 9
1941-42	5 3 6	3 9 4	2 11 0	9 5 6	6 3 11	4 15 10	0 5 3	0 3 11	0 3 0
1942-43	5 12 0	4 0 1	2 10 9	8 14 10	6 9 9	3 14 10	0 5 10	0 4 4	0 2 5
1943-44	7 2 4	4 5 5	3 3 11	12 1 0	7 14 9	5 3 2	0 6 6	0 4 10	0 2 10

NOTE: 1.—The figures in columns 2, 3 and 4 have been obtained by dividing the total monthly cash earnings by the total number of labourers on the books.

NOTE: 2.—The average monthly wages (columns 5, 6 and 7) have been obtained by dividing the total monthly cash earnings by the average daily working strength.

It will be seen that the earnings of the settled labourers are higher than those of the *faltu* or *basti* labourers. This is mainly due to the fact that the *faltu* labourers cultivate their own lands and work occasionally in the gardens according to their convenience. Settled labourers are also given more work by way of *ticca* in preference to *faltu* labourers.

The Royal Commission states in its Report (p. 387) that in 1929-30, the average monthly earnings (obtained by dividing the total monthly earnings by the average daily working strength) in the Assam Valley were Rs. 13-8-7 for men, Rs. 11-1-7 for women and Rs. 7-8-6 for children and in the Surma Valley the corresponding averages were Rs. 10-11-0, 8-6-1, and 5-6-2 respectively. The earnings began to decline as a result of the depression in 1930 and the trend was accelerated by the International Tea Control which came into operation in 1933-34. The Control restricted production which resulted in the reduction of work and consequently of earnings of labour. The earnings have shown an upward tendency in recent years, but they have not even now reached the level of 1929-30.

The Indian Tea Association has given a third criterion of earnings in its reply, namely, the potential monthly earnings of a worker if he worked diligently and regularly on every day when work is offered. It has calculated the earnings of the thirty best earners from a few gardens in each valley and has compared them with the two averages mentioned before as follows :—

(i) Assam Valley.

Average monthly earnings of settled labourers on 14 sample gardens for 12 months, January-December, of 1938 and 1943 :—

Year.	1. Total earnings divided by total number on the books.				2. Total earnings divided by the average daily muster.				3. Average monthly earnings of 30 best workers in these gardens.			
	Men		Women		Men.		Women.		Men.		Women.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1938	7	2 1	5	7 7	8	15 3	7	10 2	9	4 1	8	5 3
1943	8	2 0	6	12 10	10	14 0	9	13 6	11	0 5	10	3 5

(ii) Surma Valley.

Average monthly earnings of settled labourers on tea estates in the Surma Valley for the months of March and September of the respective years and monthly earnings of thirty best earners on 10 sample gardens for the 12 months, January-December, of 1938 and 1943 :—

Year.	1. Total earnings divided by total number on books.						2. Total earnings divided by the average daily muster.						3. Average monthly earnings of 30 best workers in these gardens.					
	Men.		Women.		Children.		Men.		Women.		Children.		Men.		Women.		Children.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
1938 ..	6	2 5	4	4 1	2	15 2	7	11 7	6	2 6	4	5 5	8	9 0	8	0 2	4	14 5
1943 ..	7	4 3	5	7 2	3	8 6	9	7 9	7	11 3	4	11 6	10	2 11	9	10 3	5	4 2

Note.—The figures for columns 1 and 2 have been obtained from the Annual Reports on the Working of the Tea Districts Emigrant Labour Act.

The average monthly earnings of the best workers offer no useful guide while considering the earning position of the labourers as a whole. As March is regarded as a slack month and September as a busy month for the tea

industry in Assam, the average figures based on these two months do provide an index of variations in average earnings from year to year. It is also admitted by many experienced planters that these average practically tally with those worked out on the basis of 12 months.

In considering the figures of average monthly cash earnings per worker on the books, it must be remembered that it is not remuneration for a full month's work ; for the average labourer works only three out of four days and that on several days he works only part-time. The other figures of average monthly wages represent the monthly earnings of an average worker if he did not absent himself on a single working day—a condition which is hardly over fulfilled. As absenteeism in tea gardens is, to some extent, inevitable, as many gardens, according to the Indian Tea Association, have already more labour than they require for half the year and, for the matter of that, for the whole year in the Surma Valley, and as the aim of the industry is to provide 5 days' work in a week, the only criterion that can be legitimately taken in considering the earnings of labourers is that of average monthly cash earnings per worker on the books, though, in actual practice, the monthly cash earnings will be somewhere between this figure and the figure obtained by dividing the total monthly earnings by the average daily muster. The monthly cash earnings per labourer on books are undoubtedly low and have to be increased if the tea industry wishes to get rid of the bad name on this account. The existence of surplus labour on many gardens also depresses the average earnings. It would be, therefore, desirable to stop recruitment in some gardens and to settle the excess labour on lands excised from garden grants or on Government lands.

The average cash earnings district-wise of settled labour per day or part day worked on Assam tea gardens for 1939 and 1944 are shown in the following table[1] :—

TABLE 31

Average daily cash earnings of settled labour, district-wise in Assam gardens, 1939 and 1944.

District	1939 (average of March and September)			1944 (average of March and September)		
	Men	Women	Children	Men	Women	Children
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
ASSAM VALLEY.						
Darrang ..	0 5 10	0 4 10	0 3 4	0 7 9	0 6 8	0 4 11
Goalpara ..	0 6 2	0 4 7	0 2 7	0 9 6	0 6 9	0 4 1
Kamrup ..	0 5 1	0 4 0	0 2 2	0 7 10	0 5 8	0 4 4
Lakhimpur ..	0 6 10	0 7 0	0 4 3	0 8 11	0 8 4	0 5 5
Nowgong ..	0 5 /5	0 5 3	0 3 3	0 7 2	0 7 2	0 4 5
Sibsagar ..	0 4 2	0 3 7	0 2 8	0 7 9	0 6 7	0 5 0
Total, Assam Velley ..	0 5 8	0 5 2	0 3 5	0 8 2	0 6 10	0 4 8
SURMA VALLEY						
Cachar ..	0 4 11	0 4 0	0 2 11	0 6 5	0 5 5	0 3 2
Sylhet ..	0 3 10	0 2 10	0 1 11	0 6 9	0 4 11	0 3 2
Total, Surma Valley ..	0 4 3	0 3 3	0 2 3	0 6 7	0 5 2	0 3 2
Grand Total ..	0 5 3	0 4 8	0 3 0	0 7 5	0 5 11	0 4 1

Though the basic wages have not been changed on the Assam gardens for several years past, the increase in daily wages is due to the Indian Tea Asso-

[1] Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years.

ciation's policy of making more work available to labour to meet the increase in the cost of living and to the reduction of task in some gardens. It was possible to make more work available to labour during the last 2 or 3 years as a large number of tea garden labourers were employed on military works, but this will not be possible now. It will be seen that the wages are the highest in the Lakhimpur district where both the production of tea and the cost of living are high and the amount of land available for giving out to labourers for cultivation is small compared to other districts. The wages generally decrease as one goes from north to south and they are the lowest in the Surma Valley where the cost of living is lower than in the other Valley.

Extent of *Ticca* Earnings

Ticca earnings have been included in all the above tables showing earnings of tea garden labourers. As the word *ticca* is loosely used, it is difficult to get an accurate idea of the *ticca* earnings ; but as considerable stress is often laid by the tea industry on these earnings, information received about them from 11 of the sampled gardens is tabulated below for what it is worth.

TABLE 32

Average monthly ticca earnings in some Assam tea gardens in 1939 *and* 1944.

Garden	1939			1944		
	Men	Women	Children	Men	Women	Children
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Assam Valley.						
A	0 1 6	0 0 6	0 0 3	0 3 11	0 0 9	0 0 2
B	2 3 0	1 7 9	1 2 4	3 15 5	2 12 8	2 1 12
C	0 5 2	0 10 8	Not available	1 15 5	0 13 5	Not available
Surma Valley						
D	0 15 1	0 1 6	0 0 5	1 9 11	0 1 7	0 0 5
E	0 12 3	0 0 1	0 0 9	1 2 3	0 4 1	0 4 5
F	0 11 6	0 6 9	0 2 4	3 12 3	1 9 6	2 6 9
G	0 10 9	0 8 7	0 2 6	1 4 6	0 15 9	0 3 1
H	1 2 11	0 1 7	0 5 10	2 8 5	0 1 1	0 5 1
I	0 8 9	0 5 10	0 3 10	0 14 1	0 10 0	0 2 11
J	1 7 0	0 8 0	0 2 4	4 2 10	2 1 5	1 4 8
K	0 12 3	0 0 1	0 0 9	1 2 3	0 4 1	0 4 5

It will appear from the above table that the *ticca* earnings constitute a very small proportion of the total cash earnings of workers. It was found that *ticca* earnings were more in Indian gardens, which are generally short of labour and, therefore, offer more *ticca* to their workers. The *ticca* earnings have gone up in 1944 as compared to 1939, as a result of the policy of making more work available to labour.

Earnings of factory workers.

The figures in the foregoing tables relate only to field workers. The factory workers are only a small proportion, roughly about 5 per cent., of the labour force and in most cases they are paid by time, though there are a number of operations in the factory for which piece rates are paid. The earnings of the time rate factory workers depend mainly on the amount of overtime offered and vary greatly from month to month in the season and from garden to garden. The average monthly earnings of the factory workers are as follows :—

(i) *Assam Valley*—
Men Rs. 10 to Rs. 14.
Women Rs. 7-8-0 to Rs. 11.

(ii) *Surma Valley*—
Men Rs. 8 to Rs. 12.
Women Rs. 5 to Rs. 8.

The factories in Assam tea gardens work only for about 8 months in a year. When the factories are not working, some of the factory labour is engaged on cleaning and repairs, etc., in the factories and the others are engaged on field work on the gardens on the same rates as the field labour. A factory worker, while working in a factory, gets about an anna more per day than the field labourer though the former has to work considerably longer hours. It may be mentioned that persons employed on withering are not covered by the Factories Act unlike in South India. In Assam the withering sheds are within the precincts of the tea factories but not above them as is generally the case in South India, but this is no sufficient reason to exclude the workers in them from the protection of the Act.

Inadequacy of cash wages.

The question of the adequacy or otherwise of wages on the Assam tea gardens is not a new one. It was considered by the Assam Labour Enquiry Committees of 1906 and 1921. The resolution of the Government of Assam on the latter committee's report says, " The Governor in Council is definitely of opinion that the standard wage for the standard task on the performance of which, as the Committee observe elsewhere, employers might reasonably insist, should, apart from *ticca* earnings, be sufficient to provide the labourer of average capacity and industry with wholesome food, sufficient clothes and a little money over..... With the recommendation that the rate of wages should be fixed on the assumption that a coolie has no cultivation or other subsidiary means of livelihood the Governor in Council also agrees. It remains to notice the contention advanced by many managers that increased wages will only mean less work for the same or more pay. This may be true in the case of lazy coolies who would in no circumstances attempt to do more than earn a bare subsistence. In this connection, the remarks in paragraph 184 are relevant[1]. But the industry could not have flourished as it has done if its labour force was universally lethargic. There is evidence that many coolies desire to attain a certain standard of comfort and the object should be to stimulate their output by encouraging that desire." The criterion laid down by the Assam Government about 23 years ago that the basic wages should be sufficient to provide the labourer of average capacity and industry with wholesome food, sufficient clothes and a little money over is not fulfilled even to this day.

Concessions.

The consideration of wages in Assam tea gardens cannot be complete without a reference to the concessions and perquisites that are offered to the labourers in addition to the cash wages.

The subject of concessions on tea gardens was dealt with by the Assam Labour Enquiry Committee of 1921 in some detail and also by the Whitley Commission. The main concessions are—

(a) Land for cultivation.
(b) Free housing.
(c) Medical attendance and maternity benefits.
(d) Fuel and grazing.
(e) Cheap foodstuffs and clothing.

(a) Land for cultivation.

This concession is valued most by the workers who are essentially agriculturists. It is customary to say that many tea garden labourers are given land to cultivate on nominal rent but this is not true of all estates, by a long way. There are tea districts such as Doom Dooma where most of the garden land is occupied by tea and little or no land is available for cultivation by

[1] These remarks are about anaemia being the real cause of the so-called laziness.

labour ; on the other hand, there are gardens in Cachar where there is more paddy cultivation than tea. The extent of this concession can be judged by the fact that in 1944 about 1,65,000 acres of land were held by garden workers as tenants of the tea estates at an average rent of Rs. 1-2-9 per acre. In that year there were 5,93,665 adults living on tea gardens in Assam, so that, on an average, there is less than one-third of an acre for each adult labourer. The concession is also unevenly distributed. In most gardens there are a number of workers without land, while there are a few who hold more than what is strictly their share. Again, the enjoyment of this concession is entirely at the discretion of the manager. The labourer is liable to vacate the land on demand by the estate though eviction is not common except as a disciplinary measure. The paddy land in Assam normally produces from 15 to 20 maunds per acre. In this connection, the Assam Labour Enquiry Committee, 1921, observed as follows : " While it may be readily conceded that the profits derived are an addition to the coolies' income, the uneven distribution of land among a labour force fluctuating from year to year makes it extremely difficult to arrive at any money equivalent which would be of practical assistance in determining the value of cultivation to the average labourer on an estate..... It would be hardly maintainable that the concession consisted in anything more than the difference between the rent (if any) charged and a fair economic rent. The value of the crops would form no part of the concession. Government has also settled with the Managers at concession rates considerable areas of waste land in the neighbourhood of tea estates for allotment among their coolies. In such cases, the concession consists in the low assessment of land revenue. It is in the interest of the employer that the coolie should be kept contented on the estate by having land to cultivate and the Committee do not consider it a practical proposition to attempt to fix any money value for the concession of land for cultivation."[1]

(b) Free Housing.

The conclusion of the Assam Labour Enquiry Committee was that if a money value had to be placed on the perquisite of free housing, it would be unfair to put it higher than the rent which would be derived from a house of the type which the labourer himself would build. The houses provided for the labourers on tea gardens are mostly *kutcha* structures with split bamboo walls and thatched roof and the necessary material is generally available in the uncultivated part of the garden itself. The rental value per month of these huts would be a negligible amount. Besides, it must be remembered that the settled labour force on gardens was imported into Assam mostly from distant provinces and that the gardens are situated in secluded areas where no other housing is possible. The industry has, therefore, rightly taken upon itself the burden of providing free housing to its labour.

(c) Medical Attendance and Maternity Benefit.

It must be mentioned that the tea industry has spent large sums of money in providing medical facilities and anti-malarial measures for the garden labourers. This was necessary, as pointed out by the Indian Tea Association in its reply, as in most cases the tea gardens are grouped together into compact, self-contained areas clearly marked off from the rest of the Province and as it is cheaper, from a purely selfish point of view, to keep the labour force in good health than to undertake greatly increased recruiting. The Assam Labour Enquiry Committee observed in this connection as follows :—" From the coolie's point of view, the Committee do not think that a money value can fairly be placed on medical arrangements which include expensive hospital

[1] Report of the Assam Labour Enquiry Committee, 1921-22, pp. 24-25.

accommodation and European medical supervision. It would be as reasonable to expect the policeman or the sepoy to regard money spent on hospitals, medicines and doctors as part of his pay ".[1]

Maternity Benefits can no longer be considered as a concession now after the passing of the Assam Maternity Benefit Act in 1944.

(d) Fuel and Grazing.

On most estates, firewood is collected free by the labourers from the garden grant and in areas where this is not possible, *e.g.*, in the Doom Dooma district a few gardens give a small cash payment in lieu of firewood. Where grazing land is available on a garden, no pastorage charge is levied. As pointed out by the Whitley Commission, these concessions are of less importance and " where available, are not regarded as concessions, as they are enjoyed by villagers in almost all agricultural areas in India ; on the other hand, the lack of such facilities in certain areas is felt as a deprivation ".[2]

(e) Cheap Foodstuffs and Clothing.

The supply of rice at concession rates was considered as rare and of less importance by the Whitley Commission. At present, however, the concession of cheap foodstuffs has become the most important concession in view of the very high prices of rice, the staple food grain, and other foodstuffs, and of their occasional unavailability in war time. It is difficult to state definitely when the supply of rice and other commodities was started in the Indian Tea Association gardens. Approximately it was by the middle of 1943 when the commodities had become very scarce and the prices had soared high, *e.g.*, early in 1943, the price of rice shot up to Rs. 30 a maund, whereas it was about Rs. 5 in 1939. The present controlled price of rice varies according to districts from Rs. 15 to Rs. 16 per maund. The rice is sold usually on cash, but in a few cases it was sold on credit until the next pay day.

In its reply, the Indian Tea Association states as follows :—

" Subject to the limitations of availability of supplies, foodstuffs are at present issued to labourers and their dependents on the scales and at the rates set forth below :—

Assam Valley—

	Adults.	Children.	Rate (maximum.)
Rice	.. 4 seers weekly	40%	Rs. 5 per maund.
Dal	.. 3½ „ monthly		-/4/- per seer.
Mustard Oil ..	.. 1½ „ „		-/8/- „
Salt	.. ½ „ „		-/3/- „
Gur	.. 2 „ „		-/3/- „

Surma Valley—

	Man.	Woman. Weekly.	Child.	Rate.
Rice	5 seers	4 seers	3 seers	-/2/- per seer
Dal	12 chataks	10 chataks	7 chataks	-/3/- „
Mustard Oil ..	4 „	3 „	2 „	-/8/- „
Salt	4 „	3 „	2 „	-/1/6 „
Gur	4 „	3 „	2 „	-/3/9 „

Information about the cost of foodstuffs and cloth concessions in 1944 was supplied by 34 out of the sampled gardens and is given below :—

TABLE 33

Cost of concessions allowed to workers in some Assam tea gardens, 1944.

Number of gardens.	Number of workers on roll.	Total cost of concessions.	Monthly *per capita* cost.
		Rs. A. P.	Rs. A. P.
34	47,787	31,73,184 5 1	5 8 6

[1]Report of the Assam Labour Enquiry Committee, p. 23.

[2]Report of the Royal Commission on Labour in India, p. 385.

The foodstuff concession is considerably less in the Indian-owned gardens than in the European-owned ones and is generally about Rs. 3 per head per month. They justify it on the ground that their cash wages are slightly higher.

The Indian Tea Association in its reply states:—

"In order to estimate the relation between the cost of concession and the total wages disbursed, all Agency Houses who are members of this Association were asked to collect complete figures from their gardens. In the case of Assam those figures are set out below:—

TABLE 34

Cost of concession in the I. T. A. gardens in 1942 *and* 1943.

	Total amount disbursed as wages.		Losses sustained on concessions.							
			Food concessions including cost of feeding children.		Cloth concession.		Total value of concessions.		Total value of concessions per rupee of total wages.	
	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	As. P.	As. P.
ASSAM VALLEY—										
Darrang ..	57,09,935	60,89,489	91,258	29,70,338	14,354	56,517	1,05,612	30,26,855	0 3·5513	7 11·4359
Nowgong ..	10,00,322	9,94,830	198	6,92,591	1,078	7,134	1,576	6,99,725	0 0·3026	11 3·0453
Kamrup .	1,83,828	2,03,043	1,319	77,329	2,500	320	3,819	77,649	0 3·9887	6 1·4258
Sibsagar .	1,01,77,716	1,04,13,306	2,59,687	60,25,964	17,036	1,11,691	2,76,723	61,37,655	0 5·2210	9 5·6090
Lakhimpur .	1,38,99,289	1,38,45,965	10,22,961	1,09,68,364	14,381	1,35,236	10,37,342	111,03,600	1 2·3390	12 10·8380
Total .	3,09,71,090	3,15,46,633	13,75,723	2,07,34,588	49,349	3,10,898	14,25,072	210,45,484	0 8·835	10 8·859
SURMA VALLEY—										
Cachar . .	35,37,087	35,24,388	66,431	25,66,271	2,23,224	2,58,800	2,89,656	28,25,072	1 3·7230	12 9·9029
Sylhet ..	60,56,082	62,93,913	1,96,429	37,70,477	2,73,655	4,55,378	4,70,084	42,25,855	1 2·9033	10 8·9125
Total ..	95,93,169	98,18,301	2,62,860	63,36,748	4,96,879	7,14,178	7,59,740	70,50,927	1 3·201	11 6·129

"The wage figures included in the foregoing table cannot be expected to coincide with those given by the Controller of Emigrant Labour. In the first place, the figures given above do not represent *all* gardens in the Province of Assam and secondly, it must be remembered that Controller's figures are based on only two months in the year. For our present purpose, however, it is only the comparative basis which matters and that is clearly sound. It will be seen that in Assam the total value of the concessions is roughly 0-10-9 for every rupee of total wages".

The above figures of cost of the concessions have been worked out by the Indian Tea Association on the basis of the loss sustained by the gardens. They include also the cost of concessions to staff and factory workers and in many cases freight charges and loss caused by rodents and shortage in weighment. As pointed out by the Assam Labour Enquiry Committee, 1921, it would not be, however, correct to assume that the loss sustained by the garden represents the monetary advantage gained by the labourer. "For instance, if the estate bought rice at Rs. 6 a maund, and the price afterwards fell to Rs. 5, though the loss to the estate on rice supplied at Rs. 3 a maund would be Rs. 3 on every maund sold, the gain to the labourer would be Rs. 2 and not Rs. 3 if he would buy it in the market at Rs. 5. It is impossible to put an exact money value on the rice concession from the coolie's point of view".[1]

It was complained by labourers on all the gardens visited that the ration was not enough, that even this ration was not always given, being subject to availability of stock, that mustard oil and salt were often not available and that the ration was reduced and even cut off for absence from work. Full ration is generally given for 5 or 6 days' attendance in a week. In some gardens, one seer of rice is reduced for each day's absence without leave and nothing is given for over 2 days' absence in a week; in others the ration is fully withheld even for 1 or 2 days' absence without leave in a week. One manager stated that he charged higher price but did not reduce ration for absence. Even the ration prescribed by the Indian Tea Association is not supplied by all the member gardens and variations in the quantity of rice are often noticed. No ration is generally given to non-working children, though such children are given a free meal in some of the gardens. The paddy grown by the labourers on their land is in most cases taken into consideration while issuing the ration and the practice of adjustment is not also uniform. Some gardens do not issue any rice as long as the labourers have their own stock. Some make an allowance of a portion of the estimated paddy yield and do not issue ration until the stock of paddy taken into account is exhausted. A few purchase the entire paddy grown by the labourers at controlled prices and issue rations at concession price. In several gardens the ration is issued through *Kayas* (garden shopkeepers) with the result that the labourer does not often get the full quantity. There is no point in rationing labour to quantities of foodstuffs if it does not receive them.

Dr. D. J. Lapping, Honorary Secretary, British Medical Association, Assam and North Bengal Branch, who conducted, at the instance of the Indian Tea Association, a survey on mal-nutrition in the tea gardens in Assam Valley in December 1943 analysed the calorific contents of the Indian Tea Association ration and obtained the figures of actual food issued and prices

[1]Report of the Assam Labour Enquiry Committee, 1921-22, pp. 25-26.

charged in five circles in the Assam Valley from the Assam Branch of the Indian Tea Association and came to the following conclusions :—

1. There is a quantitative and qualitative deficiency in the Indian Tea Association diet.

2. The labourer is not receiving the Indian Tea Association diet.

3. He is paying more for that portion of the Indian Tea Association diet that he does receive than the Indian Tea Association rates allow, and

4. He cannot, at present prices,—

(a) supplement his own diet.

(b) feed his dependents.

As a result of Dr. Lapping's report, the Indian Tea Association recommended the increase of the ration for a working boy and girl to 100 per cent. and 80 per cent. respectively of the adult ration.

Clothing.

Many gardens distribute standard cloth consisting of 1 sari or dhoti at cost price to their labour at Puja time, some do so at substantially reduced rates and some issue cloth free. In a few gardens, a blanket is also supplied free.

On the subject of concessions, as a whole, the Assam Labour Enquiry Committee, 1921 remarked " Under Act VI of 1901 (sections 132-136) the provision of house accommodation, water supply, sanitary arrangements, hospital accommodation, and medical attendance was compulsory, also the supply of food grains at a price to be fixed by the Local Government which in the case of rice was Rs. 3 per maund. The omission to provide house accommodation, water supply, sanitary arrangements and rations in accordance with the Act and rules framed by the Local Government was punishable with severe penalties. And the failure to provide hospital accommodation or to make provision for the medical care and treatment of labourers as required by the rules made under the Act was also punishable by fine up to Rs. 200 for each week during which the default continued (sections 189, 190). The idea that these requirements are to be regarded as concessions is, therefore, of comparatively recent origin. When the Labour Enquiry Committee of 1906 recommended an increase in wages in order to attract labour from the recruiting districts, they observed, ' It is no use saying that the planter provides the coolie with extras which should count in lieu of wages. This is not considered, and will not be considered, by the person who is being asked to emigrate ' and it may be conceded at once that this represents the attitude of the average labourer on a tea garden as regards most of these so-called concessions. The Committee do not, of course, wish in any way to minimise the enormous expenditure incurred by large Companies in Upper Assam or elsewhere in the province on the provision of permanent lines, an elaborate water-supply, excellent hospital accommodation and up-to-date medical and sanitary arrangements, but only to present the point of view of the labourer ".[1]

It will be clear from the foregoing that only the concession on foodstuffs and cloth should be taken into account while considering the labourer's

[1] Report of the Assam Labour Enquiry Committee, 1921-22, p. 21.

earnings. This concession is a war-time measure and will disappear as soon as things become normal.

Replacement of Concessions by Cash Payment.

The Indian Tea Associations in its reply states, " It has sometimes been maintained that the whole system of ' concessions ' is wrong ; that the labourer ought to be paid such a wage that he would need no concessions but could buy what he wants wherever he likes at ordinary economic prices. From the employer's point of view there would be much to be said for such a change, for it would take away the extra work and the anxiety connected with the discharge of his responsibility to the labour force in these matters, but it would be most unsatisfactory from the point of view of the labour ". The question of replacement of concessions was considered by the Assam Labour Enquiry Committee, 1921. " The view of the Committee as regards housing, medical attendance and land for cultivation is that though there is a theoretical possibility of converting these concessions into a money equivalent, this is impracticable and undesirable, both from the point of view of the labourer and of the garden. As regards rice and clothing concessions, the Committee think that the labourer should have the opportunity of earning a sufficient wage without working overtime to enable him to buy rice and clothing in the open market, unless they are abnormally dear when he might reasonably expect the garden to come to his assistance. It is recognised that it is necessary to show special consideration to new coolies and weakly individuals, but the Committee hold that the principle of payment in kind is open to objection in that it is optional, uncertain, and liable to abuse where the management is inexperienced or careless."[1] There is no doubt that it is not desirable to convert the concessions except cheap foodstuff and clothing into cash equivalent ; and it may be added that the other concessions are essentially in the interests of the employers also, as they are needed to hold labour coming from distant places and working in secluded areas.

Importance of Cash Wages.

The low cash wages on Assam tea gardens are sought to be justified by the tea industry on the ground of these concessions. But the importance of cash wages cannot be overlooked. This aspect of the question was stressed also by the Assam Labour Enquiry Committee of 1906, as stated above. The Whitley Commission was also of the same view, " Labour has to be imported from distant areas, and wages are the main factor influencing emigration. It is not enough for an intending recruit to be told that he will be better off in Assam. He naturally desires to have some indication of the monetary return he may expect for his labour ".[2] It will not be incorrect to say that the prevalence of low wages in Assam tea gardens coupled with the now extinct system of indenture labour is largely responsible for giving a bad name to the plantation industry in the Province.

Increased Cost of Living during the War.

The general policy followed in Assam by the Indian Tea Association on the question of giving compensation to labour for the stupendous rise in the prices during recent years was to leave the basic wage rates alone, to give no dearness or any other allowance, but to supply foodstuffs at concession rates and offer increased opportunities for earning by doing more work. A few gardens have also decreased the task. Increasing the cash wages would have,

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[1]Report of the Assam Labour Enquiry Committee, 1921-22, p. 29.

[2]Report of the Royal Commission on Labour in India, p. 386.

in its opinion, strengthened the inflationary tendencies which "work with particular force in tea gardens where the ordinary number of channels of supply is very limited. More pay in the hands of the labour force means that the local shopkeeper puts up his prices still more, and so the last state of the labourer is worse than the first. It is also desirable that a measure designed to meet a purely temporary need should be of such a nature that it can be easily discontinued or modified when that need has passed." Only rice is sold at pre-war price and other commodities are generally sold at cost price, or at a small concession. It has been mentioned above that even this ration and prices prescribed by the Indian Tea Association are not strictly followed by all the member-gardens. Making more work available to labour does not, of course, mean the same thing as giving a higher wage to meet the increased cost of living. The following statement compiled from the Annual Reports of the Controller of Emigrant Labour shows the average total labour force (including *faltu* labour) and the average total monthly sums paid out as wages in Assam gardens from 1939 to 1943. The figures are based on the average of March and September.

Year.	Total labour force.	Total monthly cash earnings.
		Rs.
1939	662,573	39,32,686
1940	658,746	39,76,024
1941	621,400	37,94,252
1942	674,639	45,06,143
1943	623,633	42,43,851

On the basis of the 1939 ratio, there has been an increase of 2 annas 4 pies in the rupee in actual cash earnings of the labour force between 1939 and 1943. The value of foodstuffs and cloth concessions in 1943, according to the Indian Tea Association, is roughly Re. 0-10-9 for every rupee of total wages. If to this is added Re. 0-2-4 in the rupee increase in cash earnings, it will be seen that the labourer received in 1943 cash or commodities at concession rates to the extent of Re. 0-13-1 for every rupee of his wages in 1939. There is no official cost of living index number for Assam. Recently, however, under the Government of India scheme, family budget enquiries are being conducted by the Director of Cost of Living Index Scheme in Silchar, Gauhati and Tinsukia with a view to compiling cost of living index numbers for these centres. In the plantation areas, however, no such enquiries have so far been undertaken and the absence of an authoritative cost of living index in Assam makes it difficult to assess accurately the fall in real wages of the plantation workers. In the opinion, however, of experienced Revenue officers and planters, the cost of living in plantation areas has gone up by at least 200 per cent. since the beginning of the war. This is also supported by the table given below which is kindly supplied by the Director of Cost of Living Index Scheme. Though the table shows prices of certain articles in non-plantation centres, it gives a general indication of the movement of prices in Assam.

TABLE 25

Retail Prices in Assam during Pre-war Period, 1943 and May 1945.

Article	Rate per	Prices obtaining in 1939	Prices obtaining in 1942	Prices in Gauhati in May 1945	Percentage of Col. 5 to Col. 3	Prices in Silchar in May 1945	Percentage of Col. 7 to Col. 3	Prices in Tinsukia in May 1945	Percentage of Col. 9 to Col. 3
	2	3	4	5	6	7	8	9	10
1. Rice	Maund	4-0-0 to 5-0-0	30-0-0 to 40-0 0	14-14-0	331	14-12-0	328	16-0-0	356
2. Dal	Seer	0-2-0 to 0-3-0	0-12 0 to 0-14-0	0-9-2	367	0-11-2	447	0-8-4	333
3. Fish	,,	0-4-0 to 0-8-0	1-8-0 to 2-0-0	1-4-0	333	1-0-0	267	2-7-0	650
4. Eggs	Four	0-1-6	0-10-0 to 0-12-0	..	..	..	..	..	..
5. Chicken ..	Each	0-4-0 to 0-6-0	1-4-0 to 1-12-0	..	..	..	..	..	..
6. Goat	Each	2-0-0 to 3-0-0	10-0-0 to 12-0-0	..	..	..	..	..	..
7. Vegetables ..	Seer	0-2-0	0-8-0 to 0-10-0	0-6-0*	300	0-6-5*		0-10-9*	538
8. Mustard Oil ..	,,	0 6-0 to 0-8-0	1-12-0 to 2-0-0	1-10-0	371	1-14-0	429	1-10-0	371

* Average of prices of potatoes and onions.

It is, therefore, clear that though the cost of living has gone up by at least 200 per cent., the earnings (including cash value of concessions in foodstuffs and cloth) of labourers in Assam tea gardens have gone up only by 82 per cent. It is true that in most industries the increase in the cost of living is not completely set off by the extra emoluments offered but it is generally conceded that there should be full compensation to labour which is on the marginal level of subsistence as is the case with the Assam plantation labour. The standard of living of tea garden labourers in Assam is appallingly low. They merely exist. They have hardly any belongings except a few clothes (mostly tattered) and a few pots (mostly earthen). Their womenfolk have no jewllery except german silver bangles in a few cases. Their houses presented a picture of stark poverty. As some labourers said, "This has become our way of life."

Wage period.

The wage period varies from garden to garden. Some gardens pay once a week, some pay once a fortnight and some others pay once a month. In some gardens *haziras* are paid once a week and *ticcas* once a month. Fining is scarcely resorted to in tea gardens. Payments are made within two or three days of the end of the wage period.

Wage Rates of Agricultural Workers.

The following table prepared from the figures supplied by the Deputy Commissioners of the important planting districts in Assam show the wage rates of agricultural workers in the neighbourhood of tea gardens in 1944.

TABLE 36

Wage rates of agricultural workers in Assam, 1944.

District.	Wage rate					
	Rs.	A.	P.		Rs.	A.	P.
Lakhimpur	From	1	8	0	to	2	0	0
Sibsagar	„	0	12	0	to	1	4	0
Sylhet	„	1	0	0	to	1	4	0
Cachar	„	1	0	0	to	1	8	0

The above figures are much higher than the average daily wages of labourers in tea gardens. It must, however, be remembered that agricultural labourers get intermittent employment and do not have any of the concessions available to the tea garden labour.

Hours of Work.

The normal hours of work are from 8 a.m. to 1 or 2 p.m. Some of the labourers complained that they had to work till about 4 p.m. to complete the task. In plucking season the pluckers work even up to 10 or 11 hours a day to earn more money. There is no muster-roll system in Assam as in South India as most of the work is done on piece-rate system.

Holidays.

Sunday is usually a holiday in all gardens. The number of paid holidays is small. Some gardens give one or two paid holidays at Fagua and one paid holiday at Puja while some give 2 or 3 unpaid holidays on these occasions.

Every facility is given for the performance of religious rites and festivals such as Fagua, Kalipuja, etc. On a few gardens, there are temples for Hindus and churches for Christians.

Commission to Garden Sirdars.

There is no uniformity about giving commission to garden sirdars for supervising the work of the labourers under them. These sirdars are different from the recruiting sirdars who are labourers sent down for recruiting. A garden sirdar usually has 40 to 50 labourers under him. A few gardens do not give any commission but give them a little higher pay, *e.g.*, Rs. 12 or so per month. In the majority of the gardens the daily wage of the sirdar is an anna more than that of the adult male labourer, *i.e.*, 6 or 7 annas and he is given a commission of 2 pice or one anna per rupee of plucking wages or on *ticca* earnings. A few gardens give one or two pice per rupee of all wages. Sometimes a little more commission *i.e.*, 1½ annas or 2 annas is given to sirdars on the earnings of the *faltu* labour brought by them. In the Surma Valley commission to sirdars is not generally given except for Sunday work when it is paid at one anna in the rupee of wages earned.

HOUSING.

Existing Facilities.

Tea garden labour in Assam falls into two classes, settled labour which lives on the garden and *basti* labour which lives in an adjacent village and works irregularly, or at particular seasons, for the garden. Houses are invariably provided by the garden to its settled labour only. Generally speaking, the garden itself arranges the actual building of the houses, but on some gardens labourers build their own houses with material supplied to them by the garden authorities. When this is done the labour is paid for the time spent in building the house.

There are two main types of arrangement of labourers' houses. On some gardens there are barrack lines, *i.e.*, houses are built in a line, though each house has its own separate compound or at the most two houses are in the same compound ; on other gardens houses are clustered about as in a village, while both systems are in force on some gardens. Real barrack lines consisting of 10 or 12 rooms were also noticed in some gardens and some of them were built back to back. There is quite an appreciable number of back-to-back lines in Assam, but such lines are not built now and the existing ones are likely to be shortly replaced. There are three main types of houses :—

(a) entirely *kutcha* ; made of bamboos, plaster and *ekra* i.e., split bamboo walls, mud floor and thatch roof,

(b) semi-*pucca* ; brick plinth, brick walls for the first few feet, frame work of metal or timber, upper part of the walls *ekra* and plaster, corrugated iron sheet or thatch roof.

(c) *pucca* brick or cement plinth, brick walls, metal frame and corrugated iron roof.

About 90 per cent. of the houses in the gardens selected were of the *kutcha* type. *Pucca* houses are probably cheaper in the long run and the tendency was to build such houses before the war. Many labourers, however, prefer the thatched house as it is cooler in the hot weather and warmer in the cold weather. Another reason given in favour of *kutcha* houses is that the aboriginals generally do not like to occupy a house where a death has taken place, though this superstition is now disappearing. The average size of a house is 15′ × 12′ and each family gets a separate house except childless couples. Six persons including children are considered by several circles as being the maximum for one house. The British Medical Association recommends that a room 18′ × 12′ with an average height of 10′ be taken as the standard size house for four people. If the family is large, it can put up a lean-to and increase the accommodation. *Kutcha* houses generally have no windows and verandahs.

There is, however, natural ventilation, as *ekra* walls are not properly plastered and as they do not reach the roof. *Pucca* houses have a window, but it was often found closed by the labourers. Apart from windows, the most common types of ventilation are ridge ventilation and ventilation spaces between top of walls and roof. Plinths are generally absent and verandahs are not common. If plinths, verandahs, *machans* (wooden bedsteads), windows and more floor area are provided, they will go a long way in improving the health of the labourers. Another point which may be stressed in this connection is the necessity of shifting houses existing on low-lying areas to higher elevations. Such houses get water-logged in the rains and are injurious to the health of labour. In one of the sampled gardens, the new *pucca* houses have a kitchen with chimney and purdah-pan type septic tank latrine which works with the ablution water and costs only Rs. 16.

No rent is charged for the houses and plastering and repairs are usually done by the labourers themselves, thatch being supplied free by the garden once in two or three years. The one-roomed house is made to serve the purposes of living room, kitchen and sleeping room. When there are children in the family, it is necessary to make separate provision for their sleeping. The Whitley Commission recommended the establishment of Boards of Health and Welfare who should lay down standard minimum requirements of housing and have the power to condemn houses which cannot be made sanitary. This recommendation has not yet been implemented. Lighting is by kerosene lamp and Whitley Commission's recommendation that as electricity is available in many plantations, a few standard lamps should be provided in and around the housing areas has not been acted upon. The Commission also observed that few plantations had made any serious attempt to provide bathing and washing places for their labourers and had suggested that the Public Health Department should prepare type plans for them. The situation about bathing and washing places is still the same to day and no action has been taken by Government to prepare type plans so far on the ground that the Public Health Department has no technical staff to enable it to evolve them. The Assam Valley Branch of the Indian Tea Association has recommended provision of concrete troughs, slab and floor near the water supply to prevent mud in the lines. Most of the gardens have a building programme and improvement of housing arrangements was being undertaken regularly but this work has been interrupted by the war. Much remains to be done especially in backward gardens.

Water Supply.

Water supply is generally adequate in all lines. The most usual method is still by open surface wells which are in many cases not covered or fitted with pulleys. The British Medical Association describes an open surface well as a most highly polluted and dangerous source of supply. One or two private wells dug by labour were also seen. Tube wells were noticed in several gardens and were said to be gaining ground fast until shortage of supplies caused by the war arrested development. A few gardens obtain their water supply from tanks and rivers but this method is also subject to severe pollution. Where there is a piped water supply, stand pipes with overhead tanks are provided at suitable intervals in the lines. A water supply point usually exists within about 200 yards of a house. Generally speaking, care is taken by many gardens to supply good water supply. About Rs. 50,000 were spent in one garden in 1939 over a tube well and de-ironisation plant. In another garden about Rs. 75,000 were spent in 1931 on a water supply scheme. Here water is pumped from a river into a storage tank, filtered and sent through pipes to lines.

Drainage.

Kutcha drains are generally common in the lines and *pucca* drains are rarity. The Assam Valley Branch of the Indian Tea Association has recommended saucer-shaped *pucca* drains between houses as the sides do not easily fall in, or get stamped in by children or cattle and as they can be easily cleaned up.

Latrines.

The Whitley Commission recommended that adequate latrine accommodation should be required in factories on plantations and that their exemption from the provisions of Section 13 of the Factories Act in Assam should be withdrawn. This has been done and a few factories have been provided with even septic tank latrines. But the position is extremely unsatisfactory in plantations proper. Though a few gardens, especially in the Doom Dooma circle, have even septic tank latrines for the use of the garden labourers, it was generally admitted that 90 per cent. of the gardens have no latrines for their labour force. In view of the very high incidence of hookworm (in some gardens the Medical Officers stated that the labour force was infected cent. per cent.) with consequent debility among the labourers, the necessity of providing adequate latrines in all the gardens cannot be over-emphasised. It was stated by several managers that as the labourers did not use the latrines provided for them, no further action to keep them in proper order or to build new ones was taken. As the experience in South Indian plantations shows, labourers can be persuaded to use latrines, provided they are kept clean and provided that a separate latrine is supplied to each family. Even in Assam it was admitted by some managers that bore-hole latrines had proved very popular and were being used by labour of all castes. The bore-hole latrine is fundamentally a family latrine and is totally unsuitable for communal purposes.

"There are three essentials, the ignoring of any of which will in all probability result in failure of the system to become popular with the labourers. Firstly, the latrines must be properly constructed; secondly, they must be introduced to the labourers with a campaign of propaganda and education; and thirdly, one latrine must be supplied to each household."[1] The failure of labourers to use latrines as stated by some managers is due to the fact that all or some of the essentials mentioned above were ignored by them. It is no use constructing one or two bore-hole latrines on a garden with some sort of shelter over them and hoping for the best.

The health of the labour force will never be satisfactory in spite of any amount of money spent on medical aid and anti-malarial measures, as long as adequate latrine arrangements are not made in the lines. What type of latrines should be provided depends on several factors such as the condition of the soil, water level, position of water supply, etc. The advantages of a borehole latrine are the cheapness and ease with which it can be constructed in the majority of soils. This type of latrine may prove a solution to the problem of providing conservancy for tea garden populations in that each house-holder can be supplied with his own installation at a low cost. On the few estates where owing to the nature of the strata it is difficult to bore or dig a deep latrine or where sufficient space is not available to provide each family with a latrine, the provision of septic tank systems, preferably with automatic flush, should be tried. The money spent on installation of latrines will pay handsome dividends in the shape of improved health of the labour force and increased production.

[1] Lamprell and Ramsay: Conservancy for Tea Estate Labourers in India, p. 15.

HEALTH AND WELFARE.

Birth and Death Rates.

As recruiting is very expensive, it is realised by many planters that conserving the health of their labour is in their own best interests. Formerly gardens having an annual death rate of more than 70 per 1,000 were classed as unhealthy gardens which were prohibited from recruiting labour under the old labour laws. This classification has been abolished as a result of the recommendation of the Whitley Commission and there was no need to retain it as the death rate is generally much below 70. In no garden visited by me was the death rate higher than 40 per *mille*. The following table[1] shows the birth and death rates per *mille*, for the tea gardens and also for the Province of Assam as a whole for the years 1939 to 1944 :—

TABLE 37

Birth and Death rates in Assam tea gardens, 1939-44.

(per thousand population).

Year.	Birth rate.		Death rate.	
	Gardens.	Province.	Gardens.	Province.
1939	35·10	28·44	21·79	19·25
1940	34·74	28·21	20·94	17·20
1941	36·58	26·73	18·72	16·75
1942	33·90	21·53	19·21	15·42
1943	30·64	19·06	25·42	16·24
1944	25·94	16.77	28·27	16.87

The above table shows that there is an increase in deaths and decrease in births since 1941, and that both the birth and death rates are higher in the gardens than in the Province as a whole. There has been a distinct change for the worse in both rates in 1943 and 1944, which is undoubtedly due to malnutrition, depletion of the medical personnel and deterioration of the anti-malarial measures in these years when Assam actually came within the war zone.

Civil Surgeons were formerly inspecting gardens in their districts with a view to finding the health conditions of workers in them, but this practice has been discontinued after the passing of the Tea Districts Emigrant Labour Act. The Director of Public Health in Assam does, however, occasionally inspect a few gardens.

There has been some deterioration in the health of the tea garden labour due to mal-nutrition, and the effect was specially noticeable in non-working children for whom there is no allowance in the Indian Tea Association ration. The labourers who were formerly consuming fish, fowl and vegetables have now to sell these protective items of food in order to make both ends meet. Dr. Lapping states in his report that malnutrition was widespread throughout the tea districts in the Assam Valley and that the class of the population most affected was the non-working children. He found that the main cause of the malnutrition was the economic inability of the labourer to purchase food rather than to any real shortage. Mr. K. C. Dutta, Assistant Commissioner of Labour, Assam, also made a survey of malnutrition among tea garden labour in December 1943 and the following month and visited 73 gardens, distributed almost equally between the two valleys, and his report established that there was

[1]Garden figures are as supplied by the managers to the Controller of Emigrant Labour. The provincial figures are from the Reports of the Director of Public Health, Assam.

malnutrition amongst tea estate labourers in most of the estates and that this was caused by high prices and scarcity of the articles of food containing fats and vitamins, such as meat, fish, eggs, milk, vegetables, mustard oil, atta and gur. The Indian Tea Association, on Dr. Lapping's report, suggested to the Agency Houses the adoption of the following measures as practical steps to combat malnutrition :—

(a) The Agency Houses should ensure that the Association's recommendations regarding the issue of rice and other food stuffs at the approved concession rates are carried out on all their estates.

(b) provision of daily cooked meals for all young non-working children at convenient centres on the estates.

(c) special feeding, usually in the hospitals, of malnourished adults and particularly of pregnant women and nursing mothers.

(d) provision of a cooked meal either at cost or concession rates on the canteen model, where possible, and as an experimental measure for a section of the adult labourers.

(e) increase of ration for a working boy and girl to 100 per cent. and 80 per cent. respectively of the adult ration.

(f) growing of vegetables by the garden itself and encouragement of their growing by the labourers in their own patches of land by supply of vegetable seed.

(g) discouragement of sale of vegetables, eggs, poultry milk, etc., by the labourers outside gardens.

(h) improvement of cattle, poultry, etc.

The suggestions contained in (b), (c), (e) and (f) have been widely adopted. Provision of cooked meals to adults was not seen anywhere and it is suggested that caste prejudice, the difficulty of providing the supervisory staff and the dispersal of the labour force over a widespread area make any general adoption of the canteen system unlikely. There has been some increase in the area under vegetable cultivation by the labourers but much progress could not be made in view of the difficulty of obtaining seed and water supply.

Free Feeding of Children.

The most important measure taken to combat malnutrition is, of course, the provision of cooked meals to non-working children. Some gardens provide one meal at noon to all non-working children and some provide two meals, one at noon and the other in the evening, for undernourished children only. The meal usually consists of rice, dal, some vegetable and *matikalai* (*i.e.*, sprouted pulse), but meat and egg curries are occasionally given in a few gardens. The children are collected in a shed and the distribution of food is usually supervised by the doctor or the compounder. It was stated by a few managers that free feeding of children was not popular with some self-respecting labourers who did not like this form of charity. Free feeding of children is not common among the Indian-owned gardens. That malnutrition existed among tea garden labourers even before the second World War is clear from the diet and physique surveys carried out in 1938 and 1939 by the All-India Institute of Public Health and Hygiene among labourers in a tea area in Assam, among cultivators in certain areas in Bengal and among certain middle class families in Calcutta. The diet of the Assam families was considered deficit both in quality and quantity and the nutrition and development of children were lower than those of other classes which were included in the survey.[1]

[1] Wilson & Mitra, Indian Journal of Medical Research, Vol. XXVI & XXVII.

Medical Aid.

There are two main forms of medical organisation in the tea industry in Assam. In the first type, the Medical Officer is responsible for all the gardens in a given area even though these gardens may belong to many different companies. In the second type of organisation which is naturally confined to a very few large companies, the company has its own Medical Officer who is in charge of all the company gardens and whose duties may, therefore, take him into several districts. Where this second type of organisation exists, there may be a large central hospital in one of the company's gardens to which all the more serious or complicated cases are sent, only simple cases being treated on the garden concerned.

Medical Officers are well qualified and visit the garden dispensaries under their control once a week or once a fortnight, depending upon the distance of the garden from their headquarters. Each Medical Officer has under his charge anything from 7 to 17 gardens. Most of the garden dispensaries and hospitals are under the charge of Assistant Medical Officers who have passed out of the Berry White Medical School, Dibrugarh, or from the Dacca Medical School. Several gardens, however, still have the old type of gardens doctors who used to serve an apprenticeship in a garden hospital and appear before an examining board known as the Assam Board, consisting of Civil Surgeons and tea garden Medical Officers. Still other gardens, mostly Indian-owned, have only a compounder in charge of the garden dispensary. There was one European-owned garden in Cachar with a settled labour population of nearly 7,000 which had only a compounder in charge of its dispensary. The medical facilities are generally better in the Assam Valley than in the other Valley.

Many gardens, especially the small ones, have no indoor accommodation and in several of the gardens which have hospitals, the indoor accommodation is most uninviting. A *kutcha* room with a few iron or wooden cots is made to serve the purpose of an indoor ward. The hospital system is largely dependent on male staffing—doctors, compounders and dressers. There are very few trained nurses and midwives and no women doctors or women health visitors, though their appointment was recommended by the Whitley Commission. The few nurses and midwives who are engaged in the hospitals are trained at Red Cross Centres, missionary hospitals and Nari-sikshasram at Silchar. Treatment is given free of cost to all garden workers, their families and dependents. An annual muster of all labourers is held on many gardens for medical inspection. No garden has a real maternity clinic (ante-natal or post-natal care), though pregnant women are generally examined once a week by the medical officer in many gardens. Confinements generally take place in the lines which may be due as much to their backwardness as to the absence of women doctors and midwives in the hospitals. Confinements in lines are attended to by *dais* who are merely selected female labourers who get their *hazira* for each case. Free food is rarely given to the mother either before or after confinement, unless it is certified to be necessary by the doctor. No free clothing is issued to the infant.

There are only two central hospitals in Assam though there should be one for each circle which generally has a population of 20,000 souls. One of the two central hospitals is the well-known hospital on Labac Tea estate which was established in 1900. It serves a group of 15 gardens belonging to one company. In 1939 the company approved of a detailed 4-year plan for rebuilding the central hospital on modern lines. The work had to be suspended after two years for the duration of the war owing to difficulty in obtaining material and skilled artisans. A three-ward maternity hospital with 20 beds for difficult

Free mid-day feeding of children in a tea estate, Assam.

Inmates of Leper Colony, Labac tea estate, Assam.

labour cases and those requiring special ante-natal care has, however, been completed. The hospital has 150 beds but only two female and one male nurse though it had four female and four male nurses at the outbreak of the war. An idea of the work done at the laboratory of the hospital may be gained from the fact that in 1944 the number of examinations, etc., done was approximately 35,000 excluding the routine identification of mosquitoes and their larvæ and the dissection of the former for evidence of infection. This is in addition to training laboratory technicians sent by the Tatas, the Indian Copper Corporation, etc., starting new laboratories elsewhere in tea areas and also training field workers in malaria of whom the laboratory has by now sent out nearly 250.

The leper colony close to, and under the supervision of, this hospital deserves a special mention. It cares for over 30 lepers at present. The following account of the work done in this colony has been kindly furnished by the Medical Officer, Dr. G. Fraser.

"Lepers are segregated in a colony of their own. The site is a pleasant one, roomy, situated on a tongue of plateau adjacent to the main lines, but separated by a ravine. As only prolonged intimate association spreads this disease, only segregation is practised as opposed to isolation. Those affected by the disease are not forbidden to go out or to mix with the general population, but their home life in the colony is made satisfying for them so that they may not wish to go abroad to any extent. Houses are good and comfortable, each patient is given a room, there are 4 rooms to a house ; they are cool and airy, being well-ventilated with adequate windows. They are well-spaced with a wide street down the middle, and the place is brightened with flowering shrubs. A large vegetable garden is provided, as well as seeds, which those that are able cultivate, and the colonists use their own products. Prizes are given for the best plots. Fruit trees have been planted all around for self-support in due course. Cow-sheds, goat sheds and hen houses, proof against wild animals, have been provided and stocked. Already there are 30 hens some with chicks, 13 cows and calves and 10 goats with kids. These will multiply gradually. The patients consume the eggs and milk produced and have the occasional chicken or goat to eat. The colonists take a great interest in the care of these things, and it is a form of occupational therapy. Clothes are provided free and a common cookhouse is maintained with a cook and assistant, from which they are given free feeding. Treatment to keep their disease within bounds as far as possible is also given and the colony receives regular visits from the local Assistant Medical Officer. The aim is to make these poor people as happy as possible in the circumstances, content in their environment, free from worry about food and clothing, and, of course, to remove them as a source of infection to their fellows, and so finally to eliminate the disease". All the lepers seemed happy and cheerful.

The common ailments in the gardens are malaria, dysentery, diarrhoea, anaemia or anchylostemiasis and respiratory dieases. The deaths among the

labourers from these ailments in the last six years are shown in the following table[1].

TABLE 38

Deaths from specified ailments among labourers in Assam tea gardens, 1939-44.

Year	Mean annual strength	Diarhoea	Dysentery	Malaria	Anaemia or anchylostemiasis	Respiratory diseases
1939	11,61,853	1,919	2,922	2,980	1,466	4,707
1940	11,73,934	1,613	2,329	2,559	1,368	4,416
1941	11,69,506	1,578	2,034	2,593	1,390	3,246
1942	11,55,142	1,816	2,084	2,527	1,476	3,384
1943	11,65,289	2,740	3,518	3,587	1,862	3,995
1944	11,66,016	2,653	4,034	4,584	2,139	4,206

It will be observed that there has been a considerable increase in bowel complaints in 1943 and 1944 and this is undoubtedly due to unbalanced or bad diet. The remarkable increase in malaria in 1943 and 1944 is connected with the return of project labour to the gardens, bringing with them new strains of malaria and to the inadequacy of drugs and anti-malarial measures. The increase in deaths due to anaemia in the same years may also be due to unbalanced or bad diet. The cases of beriberi and kala-azar, too, increased from 10 and 108 in 1941 to 138 and 209 respectively in 1944.

Medical Expenditure.

The Indian Tea Association in its reply has given the following interesting figures in this connection. The figures relate to 98.3 per cent. and 80 per cent. of member acreage in Assam Valley and Surma Valley respectively and mostly to 1937 as those relating to war years would not show the normal position.

[1]Compiled from the Annual Report on the Working of the Tea Districts Emigrant Labour Act for the respective years. The figures given are as supplied by the managers.

TABLE 39

Medical expenditure in Assam tea gardens, 1937.

Medical personnel			Medical units			Expenditure			Average expenditure per head of adult employee			Total estimated expenditure	
	Assam Valley	Surma Valley		Assam Valley	Surma Valley		Assam Valley	Surma Valley	Assam Valley		Surma Valley	Assam Valley	Surma Valley
							Rs.	Rs.	Rs. A. P.		Rs. A. P.	Rs.	Rs.
Medical Officers	35	14	Hospitals	433	126	Medical	27,35,887	789,694	9 5 0		8 1 0	35,55,000	12,56,116
Asst. M.Os.	389	124	Dispensaries	329	189	Public health	2,10,717	159,356					
Compounders	405	141	Anti-malaria units	156	71	Maternity Benefit.	410,714	112,252					
Dressers	397	258	Child Welfare Centres.	..	49								
Midwives	363	88											
Total	1,589	625		918	435		33,57,318	10,61,302					

Sickness Benefit.

There is nothing definite about giving a sick *hazira* to labourers who are unable to work owing to illness. If he is an in-patient, he is fed free and if an attendant is necessary, he is given his *hazira*. In the case of an out-patient some gardens give nothing while others give ½ *hazira* if there is nobody to support him. In cases of accidents while at work, some gardens give full *hazira* as long as the labourer is unable to resume work. In one garden it was noticed that the sick *hazira* was recovered afterwards in the case of irregular workers. The Indian Tea Association is considering the question of regularising the grant of sick *hazira*.

Maternity Benefit.

There is a great deal of variety in the method of paying maternity benefits and the most usual method is a weekly payment of about 8 annas to a rupee or so for sometime before and after birth. In some gardens, the woman is given leave for three months and is paid her daily *hazira*. Some gardens give a bonus of Rs. 5 at the time of childbirth, while some others give the bonus to the mother when she comes to work or if the child is alive at the end of the year and is regularly brought for medical inspection from birth onwards. The total benefit, generally speaking, ranges from Rs. 14 to Rs. 25. The amount is usually paid in cash, though some gardens give a portion of it in kind. Some gardens also give extra milk to pregnant and nursing mothers. As stated by the Indian Tea Association in its reply, both philanthropic and business considerations continue to encourage a liberal policy with regard to maternity benefits on tea estates. It is after all cheaper to facilitate the birth and growth of healthy children than to recruit the future labour force from distant provinces.

Assam now has a Maternity Benefit Act (Assam Act I of 1944) which applies to plantations and makes the benefit compulsory. A plantation is defined as an estate in which ten or more women have been employed at any time during the year preceding the date on which a claim arises under the Act. It came into force from the 1st February 1944 but had not become fully operative until recently as the rules thereunder came into force only on the 1st September 1945. It provides for payment on plantations at the rate of Re. 1 per week for four weeks before delivery and of Rs. 1-4-0 per week for four weeks after delivery, provided that the total cash payment shall not be less than Rs. 14-0-0. Employment of a woman during the four weeks immediately following her delivery is prohibited and she can be employed during the four weeks immediately preceding her delivery only on such suitable light work as may be recommended by the medical practitioner.

No qualifying period is required in respect of an immigrant woman who was pregnant when she arrived in Assam, but in other cases it is 150 days. The employer is required either to provide upon the premises free medical treatment and attendance for every woman entitled to maternity benefit or to make such arrangements with a medical practitioner to provide such treatment and attendance as are approved by the Civil Surgeon of the district. When a woman declines to accept the approved attendance and treatment provided by her employer, no maternity benefit is admissible.

Some of the sampled European-owned gardens were found giving higher benefit than is prescribed under the Act, but it was noticed in one or two gardens that it was reduced as a result of the Act in spite of the recommendation of the Indian Tea Association to the contrary. Some of the sampled Indian-

owned gardens give very little maternity benefit and will have to increase it now at least to the extent required by the Act.

Anti-malarial Measures.

The most important aspect of public health work in the tea gardens in Assam is the organisation of measures to prevent malaria which causes most of the sickness. Until 1925, very little was known regarding the habits of those particular malaria mosquito carriers which inhabit the plantation areas. Dr. Ramsay, the then Medical Officer of the Labac Central Hospital, started his great work on malaria control in 1925. He studied the habits and breeding places of mosquitoes and in the end solved the puzzle, detecting the principal carrier, *Anopheles minimus* in the course of 50,000 dissections. He evolved the plan of densely shading drains and swamps, having found that it did not breed in these conditions. During his pioneer researches in Assam, Dr. Ramsay also early recognized the fact that heavy downpours of rain rendered streams and rivers completely free from all mosquito larvæ. The flushing method started by him has now been considerably improved and perhaps the most recent improvement is the pipeless automatic syphon. In some areas large syphons made of concrete discharge many thousands of gallons of water per minute with an initial velocity which is said to be nearly 300 feet per minute. The effect of this tremendous recurrent flush of water, washing larvæ out of pools, destroying them and then suddenly closing off and becoming almost dry can well be imagined. The two methods of shading and flushing in combination have produced spectacular results in the reduction of malaria. To-day, as a result, there are actually thousands of miles of shaded drains and swamps, and a very large number of automatic flushing syphons and sluice gates in the tea districts of North and South India. In contrast to the neighbouring province of Bengal, the malaria of Assam is an open book in consequence of this work.

A large number of people are trained annually to carry out these measures by the Indian Branch of the Ross Institute of Tropical Hygiene, London. Dr. Ramsay is now the Principal of this Branch. This Institute which has contributed so much to the advance of knowledge regarding public health in India is financed very largely by the tea industry. About 700 malariologists have been so far trained by the industry under the aegis of this institute.

Shortage of larvicides, insecticides and quinine has brought out the great importance of biological control measures of malaria such as flushing and shading on estates throughout India. In addition to the above biological methods, malaria control by means of drug prophylaxis has long been practised in the tea industry. Many gardens are members of the Ross Institute, India Branch, and avail themselves of the expert advice and guidance of Dr. Ramsay. In the Doom Dooma tea company, the spleen rate in 1942 was 17.56 per cent. compared with 70.15 per cent. in 1936. The achievement of the tea industry in fighting malaria is one of which it can be legitimately proud. At the Annual General Meeting of the Indian Tea Association held on March 29th, 1940, Sir Malcolm Watson, Director of the Ross Institute stated, " I can say without hesitation and without a qualification that in the last decade nowhere in the British Empire has such progress been made in the control of malaria as in the tea estates in India ; it is a remarkable achievement ". Of course the standard of work is not the same in all gardens. The anti-malarial work has also suffered severely as a result of the war. On several sampled gardens, nothing is virtually done at present. It appears that the control of malaria in the post-war period will be easy by the use of D. D. T. and paludrine.

Education.

Out of the 39 gardens visited, not many had primary schools for children, and the attendance in them too was small. The Indian Tea Association states in its reply "Primary schools exist on the great majority of gardens but it must be admitted frankly that attendance is meagre and that education is still backward on tea estates. In 1937-39 the Indian Tea Association made a drive for increasing and improving educational arrangements, but it was not very successful. Since 1939 there has been deterioration in attendance presumably on account of war conditions. Many pundits have left the schools to go to other more lucrative and urgent work and the managements, in their present depleted and over-worked state, cannot give to this subject the attention which it demands. It is fairly clear that this matter will require attention after the war."

The chief obstacle to the progress of education according to the tea industry is the apathy of the parents who prefer to send their children to work in gardens rather than to schools. This inclination may be due to the fact that the parents are anxious to supplement their meagre income by the earnings of their children. The total number of schools in the gardens in Assam in 1943-44 was 392 with 12,122 pupils on the rolls. Of these, 301 schools were C class, *i.e.*, under the gardens and not under the Education Department while only 10 were A class (cost of which is borne by Government) and 81 were B Class (which receives grant from Government). Even out of the small number of children on rolls, a good proportion are children of the Indian staff. Education is free and some gardens supply books and slates also. The attendance will undoubtedly improve if children below 12 are not employed by the gardens. Most of the managers stated that child labour was uneconomic and that they employed children only to satisfy their parents. If this is really so, there should be no difficulty in discontinuing employment of children and the parents also would not object to it, if they can maintain the family on their earnings without having to depend on those of their children. The Whitley Commission recommended that employment, either directly or with parents, of children on plantations before the age of 10 should be prohibited by law but this recommendation has not been implemented. There is no doubt that children should not be allowed to work in plantations though children above 10 or 12 may be allowed to work for a month or two in the busiest plucking season when the schools can have their annual vacation. None of the gardens visited had any school for adults. The Indian Tea Association states that such schools are neither common nor popular. It is desirable that the tea industry should concentrate on increasing the number of schools in the garden in the post-war period to disarm the critics who might say that the planters are interested in keeping their labourers ignorant.

Indebtedness.

The Indian Tea Association states in its reply that indebtedness of the labourers has gone down, that, for example, the total advances outstanding from the labour force of 151,000 in the Surma Valley in 1938 was only Rs. 35,000 and that it is believed that there is practically no indebtedness to outside moneylenders. No enquiries could be made to ascertain the extent of indebtedness to moneylenders, but it appears that in the sampled gardens the average indebtedness per head to the garden is very small, namely, from a few annas up to Rs. 3 or 4. The average incidence was, however, somewhat higher in the Indian-owned gardens.

Drinking.

There is undoubtedly a good deal of drinking among labourers, though some estates report an improvement in recent years. Home-distilled *lao-pani* is very

popular with a certain section of labourers and several cases of absence from work on Monday as a result of excess of *lao-pani* on Sunday came to notice. *Lao-pani*, of course, is not so harmful as the country liquor which is often seriously adulterated. Liquor is difficult to obtain due to its irregular supply to liquor shops and the labourers who brew their own liquor are finding it difficult to do so in view of shortage of rice. Opium eating is confined to a small minority but a considerable number of labourers are in the habit of smoking *ganja*.

Other Welfare Activities.

Some welfare activities such as free feeding of non-working children, etc., have been mentioned earlier. Apart from them there are very few welfare activities on the gardens at present due to war conditions which have affected the Assam plantations more than those in other areas. Football and hockey were hardly noticeable in any of the gardens visited, though it is said that they were popular before the war in several gardens which supplied the equipment free. The virtual disappearance of these games may be due to depletion of European assistants who took keen interest in organising sports. Generally speaking, the tea garden labourer, like the villager, is not organised in his spare time. Cinema shows are also rare now and even formerly there was nothing regular about it. Entertainments such as "nautch" are arranged at Kalipuja time and most of the gardens contribute towards the expenses, but it was noticed that in a few cases deduction of about a rupee at the rate of one anna per week was made from the workers for meeting the expenses and nothing was contributed by the staff or the garden. In one garden the Puja hall was built out of such money but it is maintained by the garden. Some gardens give hot tea with salt and no milk in plucking season. It will be desirable to give a piece of hessian cloth to women pluckers to protect their saris. Some gardens give umbrellas on credit and recover the cost in easy instalments.

Even though the industry employs a very large number of women, there are practically no creches for children. Infants are generally taken by mothers with them while working in the gardens while toddlers are left behind in the lines in charge of grown-up children or old women. It was stated that creches were tried in a few gardens but were not popular and that in the conditions of garden life, they were probably not a very urgent necessity. This view is not shared by the planters in South India and there can be hardly any doubt about the desirability of having creches in the tea gardens of North-East India also.

Cattle.

Some gardens keep milch cows for providing milk for hospitals, nursing mothers and children. Some also keep a stud bull for improving the garden live-stock. Labourers are encouraged to keep cattle where there is sufficient grazing facility. There are a few small cattle-breeding societies in Assam but there is nothing to compare with the big and flourishing society in the Anamallais. Some gardens maintain a pound in which cattle straying in the

tea area are detained. The fine levied is about four annas per head of cattle and two annas for a goat per day. The amounts realised are spent by the manager in his discretion.

Bonus or Cloth Allowance.

In Surma Valley, a bonus or cloth allowance of Rs. 10, 8, 6 or 4 is generally given to men, women and child workers respectively since 1944 at the time of the Puja holidays. It is either paid in cash or in kind in the shape of cloth and the balance, if any, is paid in cash. Some gardens pay the bonus six-monthly at half the rate. The bonus is usually related to attendance. It is paid in full for 144 days' work in 6 months and is proportionately reduced for less attendance and nothing is paid for less than 75 or 80 days' work. In fact, it amounts to good attendance bonus, though the idea in giving the bonus was to compensate the labourers for increased cost of cloth.

Latera Gang.

Most of the gardens provide for their weak, old and infirm labourers by forming them into what are called '*latera* gangs'. *Latera* literally means 'untidy'. They are employed in weeding, carrying manure and such other odd jobs. They are generally paid 3 to 4 annas a day or get free rice.

Pensions.

Some of the gardens give a pension of 3 to 5 rupees per month to their old sardars. It is not usually given to old labourers who have to depend on their relatives or join the *latera* gang. Though the Assam Labour Enquiry Committee, 1921, had stated that the provision of superannuation benefit is a matter which might well receive more attention, it has not received any serious attention from the tea industry.

Improvement in labour conditions since the Royal Commission's Report.

There is no doubt that noticeable improvement has taken place in some of the labour conditions on tea gardens in Assam since 1931 when the Royal Commission's report was published. The improvement has been mainly in the direction of better medical facilities and anti-malarial measures, improved maternity benefits, provision of cooked meals to non-working children on many gardens, improvement of housing arrangements and a slight strengthening of the labourer's position *vis-a-vis* the employer by the grant of repatriation right. But there has been virtually no improvement in such important matters as cash wages, real freedom of movement and association, education and organisation of labour. Even in some of the matters mentioned above as showing improvement, there has been a deterioration during the war, *e.g.*, in medical facilities, anti-malarial measures, housing, etc. This set-back is obviously temporary and it is hoped that the lost ground will be soon made up.

ORGANISATON OF EMPLOYERS AND EMPLOYEES.

The plantation industry is one of the best organised industries in India. The chief organisation of the planters in North East India is the Indian Tea Association, Calcutta. It was formed in 1881 for the promotion of the mutual interests of all persons concerned in the cultivation of tea. Its membership is open to proprietors, managers and agents of tea estates in North-East India. The most important sterling interests of the tea industry in North-East India are represented by the Indian Tea Association, London. There is no organic connection between the London and Calcutta bodies, though in practice the

connection between them is very close and the majority of members of the Indian Tea Association, London, are also members of the Indian Tea Association, Calcutta. The Indian Tea Association, Calcutta, has two branches in Assam, namely, the Assam Valley Branch and the Surma Valley Branch. It represents over 90 per cent. of the total acreage under tea in Assam. Almost all European-owned estates and some Indian-owned estates are members of the Association. The Indian Planters also have two principal Associations of their own, one for each Valley.

European planting in Assam has 7 representatives in the local Assembly, while Indian planting has 2. There is in the Assembly a Planting and Commerce Group which consists of 9 members, including 7 European planting members and 2 other European members representing the European seat and the Commerce and Industry seat. This group watches over the interests of the tea industry in the Assembly and its secretary, known as the Political Secretary, acts as a liaison officer between the industry and the Assam Government. The Indian Planting M. L. As. have not joined the Planting and Commerce group.

In striking contrast to the extremely well-organised employers, the workers are absolutely unorganised and helpless.

Trade Unions.

In the whole of Assam, there was until recently only one trade union of tea garden labourers in the Cachar district. It is known as " Sylhet—Cachar Cha-bagan Mazdoor Union " and its head office is in Silchar. It was formed in 1939 and is registered. Its Chairman is Mr. A. K. Chanda, M.L.A., and Vice-Chairman, Mr. Sanat Kumar Ahir, M.L.A. The latter is working as a mechanic in a tea factory and is one of the four representatives of the garden labour in the Provincial Assembly. Its membership is about 900 and is drawn from two tea circles in the Cachar District. The membership fee is two annas a year. The union representatives stated that they had to carry on their activities stealthily.

In May 1945, five individual garden unions and one Assam Tea Labourers' Federation consisting of them have been formed in the Sibsagar district through the efforts of Professor P. N. Sarwan of Jorhat. He is a brother of a labour M. L. A. The membership subscription is three annas a year. These unions are registered but have not yet started functioning.

The plantation labour, too, has 4 seats in the Assam Legislative Assembly. The constituencies are small and are shifted to different areas in the plantation districts at the time of every election. Only persons belonging to those castes from which plantation labour is recruited can stand for election. The members representing labour in the Assembly are of poor status and calibre (*e.g.*, one is a taxi-driver of a garden and his predecessor was a butler in a planters' club) and have done nothing so far to improve the lot of their voters.

There were formerly a few welfare committees formed of chaukidars, Indian staff and the manager in some gardens, but none exists now.

Strikes.

Normally the best evidence as to the relationship between the employers and their labourers is found from a record of strikes, but this criterion is not of much use in Assam tea industry where one side is extremely powerful and organised and the other is equally helpless and unorganised. Even so, it is surprising to note the following list (perhaps not exhaustive) of strikes that have taken place since 1930 with the reasons for them :—

TABLE 40

Number of strikes in Assam Plantations, 1930-1944.

Year	Number of strikes	Number of labourers involved	Reasons
1930	3	about 1,900	Ill-treatment and conditions of work.
1931	12	,, 3,200	Economic grievances including demand for higher wages in 11 cases.
1932	8	,, 3,200	Demand for higher wages in 5 cases and conditions of work in others.
1933	11	,, 5,500	Demand for higher wages in 7 cases.
1934	8	,, 4,600	Demand for higher wages in 4 cases and ill treatment in others.
1935	11	,, 5,300	Economic greivances including demand for more wages and ill treatment.
1936	8	,, 2,200	Demand for higher wages in 7 cases and ill treatment in one case.
1937	10	,, 3,700	Economic grievances including demand for higher wages in 7 cases.
1938	7	,, 3,700	Economic grievances in 1 case only and ill treatment in others.
1939	37	Not known	Mostly economic grievances.
1940	17	,,	Economic grievances, heavy task and leaf weighment, etc.
1941	7	,,	Economic grievances and dispute about task.
1942	1	,,	Economic grievances.
1943	1	,,	Stoppage of rice concession to chronic absentees.
1944	1	,,	Not known.

Since 1941, there has been a definite reduction in strikes due to (a) restriction on the activities of ' agitators ' to secure stable conditions for the war effort (b) provision by the industry of foodstuffs at a concession rates, and (c) military works which have brought increased wages to a large body of workers.

In Assam there is no legal duty on managers to report strikes but the Indian Tea Association has agreed, since 1940, to report to the Government of Assam strikes lasting over 24 hours. Originally only those strikes were to be reportable which involved more than 25 per cent. of the garden labour force, but it was subsequently agreed to drop this limitation.

When a strike takes place, as soon as possible after the second day, an Enquiry Committee, consisting of the Circle Chairman and two senior planters is convened by the Circle Committee of the Indian Tea Association. Its main function is to ascertain the facts and the causes of the strike, but it will also, when necessary, try to bring about a settlement. All strikes are now reported to the Sub-divisional Magistrate and the Deputy Commissioner and it not infrequently happens that the presence of these officers and of the police on the spot helps to promote a settlement. It was stated by the representatives of the Sylhet-Cachar Cha-Bagan Mazdoor Union that the district authorities were not usually interested in the merits of the dispute but were concerned only with preventing a breach of the peace with the result that their presence always worked in favour of maintaining the *status quo*. Until recently, strikes in tea states were not reported either to the Controller of Emigrant Labour or to the Labour Commissioner, Assam.

CHAPTER III.—BENGAL.

After Assam, Bengal has the largest area under tea in India. The area under tea in this province in 1942, according to Indian Tea Statistics, was 201,495 acres, i.e., about 24 per cent of the total area under tea in India. The main tea growing areas in Bengal are Jalpaiguri and Darjeeling districts, which had, in 1942, 189 and 137 gardens and 131,748 and 63,227 acres under tea respectively. Chittagong district had 30 gardens and 6,238 acres of tea in the same year. The other two areas, viz., Tippera and Chittagong Hill Tracts districts are insignificant and had one garden each with an area under tea of 125 and 157 acres respectively. Tripura State in Bengal had, however, 55 gardens with 11,167 acres under tea. There is also Government cinchona plantation at Mungo in Darjeeling district, the area under cinchona being 5,500 acres.

The Jalpaiguri district is known in planting parlance as the Dooars. The term 'Dooars' owes its origin to the fact that this area was formerly considered as 'dwar' (door) to Bhutan. Portion of the area lying to the east of the river Torsa is called the Eastern or Alipur Dooars and that on the west the Western Dooars. The Darjeeling tea area is a hill district and is unique in this respect in North East India. It is a small rectangular area about 20 miles square surrounding Darjeeling. The Terai tea area is submontane and is included in the Darjeeling revenue district.

METHOD OF SURVEY.

The survey was confined to the Dooars, the Terai and Darjeeling tea districts. 15 gardens in the Dooars, 5 in the Terai and 8 gardens in Darjeeling were selected on the same basis as in Assam. These gardens as well as the other gardens visited by me in these areas are given in Appendix IX. The area of the sampled gardens was about 10 per cent, 16 per cent., and 13 per cent of the total area under tea in the Dooars, the Terai and Darjeeling respectively. Out of 28 gardens, 6 were Indian-owned, 3 in each revenue district. The average size of a garden in the Dooars is about 700 acres and in the Terai and Darjeeling about 460 acres each.

The sampled gardens were visited by the supervisory staff. Including 4 sampled gardens, I visited 13 gardens, 8 in the Dooars, 2 in the Terai and 3 in Darjeeling. I also visited the cinchona plantation at Mungo. I talked with labourers on the gardens visited and discussed the labour conditions with the representatives of four employers' associations.

The structure of the industry and the processes of cultivation and manufacture of tea are similar to those in Assam. About 78 per cent. of the acreage under tea in Bengal is under the membership of the Indian Tea Association.

EMPLOYMENT.

The total employment in the tea gardens in Bengal in 1939 and 1942 (the latest year for which figures are available) is shown in the following table,[1]

TABLE 41

Daily average employment in tea gardens in Bengal in 1939 and 1942.

District & State	1939			1942		
	Garden labour (permanent)	Outside labour (permanent)	Outside labour (temporary)	Garden labour (permanent)	Outside labour (permanent)	Outside labour (temporary)
Jalpaiguri ..	121,803	1,729	4,254	134,691	1,860	5,023
Darjeeling ..	67,530	1,512	2,028	70,103	1,619	1,828
Chittagong ..	4,733	413	712	4,556	455	798
Tippera ..	54	..	10	62	..	10
Chittagong Hill Tracts. ..	90	37	76	120	48	78
Total ..	194,210	3,691	7,080	209,532	3,982	7,737
Tripura State ..	6,588	1,331	1,538	7,818	1,501	1,526
Grand Total	200,798	5,022	8,618	217,350	5,483	9,263

The above figures show that there has been an increase in employment between 1939 and 1942. Though figures of total employment beyond 1942 are not available, it appears that they have gone down recently as managers of the sampled gardens stated that they were short of labour and that several labourers had left to join military projects which offered more wages.

The total labour population resident on the gardens in the Dooars was 275,398 (140,512 males and 134,886 females) in 1944.[2] The total resident labour population in the Terai and Darjeeling is not known accurately but judging by the figures in the table below, it may be estimated at about one lakh.

Figures of resident labour population in 1944 and their composition were supplied by 10 gardens in the Dooars and 12 gardens in the Terai and Darjeeling and the information is tabulated below :—

TABLE 42.

Resident labour and their composition in some gardens, 1944.

	Number		Percent of total population	Percent of working population
Dooars.				
Male : working	4,717		26·11	42·24
Non-working	882		4·88	..
Female : working	5,377		29·76	48·15
Non-working	969		5·36	..
Children : working	1,074		5·95	9·61
Non-working	5,047		27·94	..
Total : working	11,168	61·82	100·00	100·00
Non-working	6,898	98·18		
Darjeeling and the Terai.				
Male : working	3,348		18·60	39·17
Non-working	1,165		6·47	..
Female : working	3,676		20·43	43·01
Non-working	2,001		11·12	..
Children : working	1,523		8·46	17·82
Non-working	6,284		34·92	..
Total : working	8,547	47·49	100·00	100·00
Non-working	9,450	52·51		
	17,997			

[1] Compiled from Indian Tea Statistics for the respective years.

[2] Annual Report on the Working of the Jalpaiguri Labour Act, 1943-44

It will appear from the above table that 61.82 per cent. of the resident labour are borne on the muster roll in the Dooars and 47.49 per cent. in the Terai and Darjeeling. Nearly half of the working labour force are women in both the areas. The total labour population in 1944 in cinchona plantation was 4,181 of whom 2,242 were workers.

Local or *Basti* Labour.

The extent of local or *basti* labour is very small except in the Terai. The figures supplied by the Indian Tea Association show that the percentage of average *basti* labour employed daily is less than 3 per cent. in the Dooars, less than 1 per cent. in Darjeeling and nearly 12 per cent. in the Terai. Employment of *basti* labour has gone down as they find more lucrative employment in military projects. The percentage of basti labour is more in plucking season than in other months. In the Dooars the *basti* labourers are mostly ex-tea garden labourers.

Size of the Family.

The Indian Tea Association in its reply has furnished the following information on this point.

TABLE 43

Size of the family in 103 *gardens in the Dooars.*

	Total females	MEMBERS						
		Working			Non working			Total members
		Men	Women	Children	Men	Women	Children	
(*a*) Families of 1 member	8,059	4,729	2,854	29	271	158	18	8,059
(*b*) Families of 2 members	12,150	9,323	9,257	1,307	880	994	2,539	24,300
(*c*) Families of 3 members	12,816	11,563	12,281	2,756	1,190	1,585	9,073	38,448
(*d*) Families of 4 members	9,369	9,706	10,975	2,825	1,158	1,545	11,267	37,476
(*e*) Families of 5 members	7,288	8,328	10,179	3,541	1,272	1,653	11,467	36,440
(*f*) Families of 6 members	5,311	6,822	7,684	3,783	1,229	1,694	10,657	31,866
(*g*) Families of over 6 members ..	4,347	7,218	8,371	4,157	1,606	1,900	11,960	35,212
Total ..	59,339	57,689	61,601	18,401	7,603	9,529	56,975	2,11,801
Composition of an average family (persons) ..	..	·97	1·04	·31	·13	·16	·96	3·57

TABLE 44

Size of the family in 20 *gardens in the Terai.*

	Total families	MEMBERS						Total members
		Working			Non-Working.			
		Men	Women	Children	Men	Women	Children	
(*a*) Families of 1 member	1,382	878	504	..	..	..	..	1,382
(*b*) Families of 2 members.	1,500	1,256	1,382	142	..	61	159	3,000
(*c*) Families of 3 members	1,474	1,329	1,718	405	..	122	898	4,422
(*d*) Families of 4 members	1,108	1,478	1,637	348	84	163	722	4,432
(*e*) Families of 5 members.	845	1,202	1,083	512	94	196	1,138	4,225
(*f*) Families of 6 members	495	925	941	503	79	238	284	2,970
(*g*) Families of over 6 members.	475	955	1,944	257	122	379	415	4,072
Total ..	7,283	8,033	9,209	2,167	379	1,159	3,556	24,503
Composition of an average family (persons).	..	1·10	1·26	·30	·05	·16	·49	3·36

TABLE 45.

Size of the family in 32 gardens in Darjeeling

	MEMBERS							
	Total families. Men	Working			Non-working			Total members
		Men	Women	Children	Men	Women	Children	
(a) Families of 1 member	719	328	255	22	48	57	9	719
(b) Families of 2 members.	1,344	701	956	198	146	336	351	2,688
(c) Families of 3 members.	1,715	1,075	1,546	551	246	440	1,287	5,148
(d) Families of 4 members.	1,756	1,368	1,820	723	297	515	2,301	7,024
(e) Families of 5 members.	1,534	1,269	1,788	965	367	611	2,670	7,679
(f) Families of 6 members.	1,232	1,188	1,650	995	343	600	2,616	7,392
(g) Families of over 6 members.	1,761	2,099	2,886	1,931	717	1,286	5,245	14,164
Total ..	10,061	8,028	10,901	5,384	2,164	3,845	14,479	44,802
Composition of an average family (persons).	..	·80	1·08	·53	·22	·38	1·44	4·45

Age Composition of Workers.

The Indian Tea Association in its reply has given the following information about the age composition of workers.

TABLE 46

Age Composition of Workers

	Dooars		Terai		Darjeeling	
	Number	%	Number	%	Number	%
Those under 15 . .	28,059	25·7	1,696	8·7	4,684	21·1
Those between 15 and 55	76,517	70·0	17,020	87·7	16,248	73·2
Those over 55 . .	4,669	4·3	684	3·6	1,279	5·7
Total . . .	109,245	100·0	19,400	100·0	22,211	100·0

The figures shown above refer to 72 gardens in the Dooars, all gardens in the Terai and 29 gardens in Darjeeling. The employment of children in the Dooars and Darjeeling planting districts is very high. Children start working from 7 years of age in these gardens. Children below 12 are not employed in the cinchona plantations.

Recruitment.

Recruitment is fully uncontrolled in Bengal. The tea Districts Labour Association recruits on behalf of its members for the Dooars. Other gardens, mostly Indian, recruit through private agencies. Most of the sampled gardens in the Terai and Darjeeling have permanently settled labour and do little or no recruiting. In the Dooars, the cost of recruitment was about Rs. 25 per head before the war and is about Rs. 36 now apart from the sardar's commission.

The following table shows the figures of recruitment by the Tea Districts Labour Association for the Dooars from 1936-37 to 1940-41. 1941 is the last normal year for tea garden recruitment unaffected by the recruitment which has since taken place for Government projects.

TABLE 47
Recruitment in the Dooars, 1937-1941

Year	Number of recruits	
	Souls	Adults
1936-37	3,588	2,940
1937-38	6,434	5,308
1938-39	5,779	4,658
1939-40	5,399	4,265
1940-41	3,645	2,813

The bulk of the recruits in the Dooars are drawn from Chota Nagpur and the Sonthal Parganas in Bihar. These recruits are known as Madasias as opposed to Paharias (hillmen). Paharias form only about 15 per cent of the total labour force in the Dooars. A cash allowance of Rs. 2 or Rs. 3 is paid to each recruit on arrival at the garden as 'settling allowance' together with necessary utensils. The labour force in the Terai is similar in composition to that in the Dooars though a few gardens which are on the foothills also employ Nepali labour. In Darjeeling, the labour consists of Nepalese and other hill people. The sardar usually gets a commission of Rs. 8 per adult from Chota Nagpur and the Sonthal Parganas and Rs. 15 per adult from other areas. The commission is paid at half this rate for recruits between 4 and 15. No pre-employment advance is normally given to labour.

Freedom of Movement.

Unrecruited labour is free to go from one estate to another. In the Dooars, if a recruited labourer goes from one estate to another within 18 months of his original recruitment, the second estate is required to pay all the recruiting expenses to the recruiting estate. The Whitley Commission has mentioned that in the Dooars, where the labour force is similar in composition to that of Assam, the garden lease usually requires the planter to maintain roads from North to South and from East to West which shall be open to the public.[1] In Darjeeling the labourer is free to go, provided he or his new manager repays the advance he owes to his garden.

Inspections of Gardens.

Unlike in Assam, there is no system of inspection of tea gardens in Bengal, though in the Dooars the Civil Surgeon, at least in theory, carries out inspections with respect to the health of the labour force under the Jalpaiguri Labour Act. He inspected 4 gardens in 1940-41, 1 in 1941-42, nil in 1942-43 and 1 in 1943-44. He submits an annual report on matters relating to sickness and medical services amongst the labour force in the Dooars.

WAGES AND EARNINGS.

Piece-rate System.

Payment in Bengal plantations is generally on the *hazira* and *ticca* system. Though there is no standard *hazira*, the *hazira* rate for men, women and children in the Dooars is 0-4-0, 0-3-0, and 0-2-0 respectively. Some gardens pay children at 0-1-6. The *hazira* is usually completed in about 4 hours. When the first *hazira* is completed, a labourer can undertake a second task which is called *doubli*. *Doubli* is smaller than *hazira* but is paid at the same rate as *hazira*. In the same way, a decreasing 3rd and even 4th tasks are theoretically possible, but in actual practice it was found that two tasks (one *hazira* and one *doubli*) were the usual output. In the Terai, the *hazira* rate is 0-4-0, 0-3-0 and 0-1-6 while in Darjeeling it is 0-5-0, 0-4-0, and 0-2-6 for men, women and children respectively. The *hazira* in Darjeeling takes about 6 hours to finish. The term *ticca* is also applied to the daily task in some of the Darjeeling gardens and in the cinchona plantation. Some of the gardens

[1]Report of the Royal Commission on Labour in India, p. 378.

in Darjeeling have split the basic *hazira* and give part of it as an attendance bonus. For instance, in one garden, the normal *hazira* rates are reduced by 0-0-6, but 6 pies per day are given to workers, if they are present for at least 5 days in a week. In another garden the basic rates are 0-3-8, 0-3-1, and 0-2-3 for men, women and children respectively, but an attendance bonus of Re. 1 per month is given to all workers for full attendance. The bonus is proportionately reduced when the attendance is between 14 and the maximum number of working days. When the attendance falls below 14 days, no bonus is given. In the cinchona plantation, the basic (*hazira*) rate is 0-6-0, 0-4-0 and 0-3-0 for men, women and children respectively and no extra work is generally done.

The *hazira* rate has not been altered for a good many years. Most of the gardens have, however, reduced the task since 1939 to enable workers to earn more.

Plucking is paid in the Dooars on the same *hazira* rates as for other work for a fixed weight of leaf plucked. This weight varies from 16 lbs. to 24 lbs. for men, 10 lbs. to 20 lbs. for women, and 10 lbs. for children. Any leaf plucked over and above the first task is paid at the rate of 3 or 4½ pies per seer or 2 lbs. In the Terai and Darjeeling, some gardens pay for plucking at a flat rate of 3 pies per lb. while others pay on the *hazira* basis. The task is usually 20 to 24 lbs. for men 16 to 20 lbs. for women and 12 to 16 lbs. for children. For extra leaf plucked over and above the task, payment is made at the rate of 3 pies per lb. When the leaf is scarce, *hazira* rate is given irrespective of the weight of the leaf brought in, provided, of course, a certain amount of work is done, Labourers are not generally paid anything for carrying leaf to the factory. Plucking is largely done by women and it is in plucking that high wages are earned. Deduction from weight of plucked leaf on account of moisture was noticed in several gardens. It varies from 5 per cent. to 15 per cent. according to the discretion of the manager. Some gardens which do not deduct change the task in wet months. Other gardens do not deduct on the ground that the amount of tea manufactured balances itself over the whole season.

Time-rate System.

Such work as cannot be formulated on a task basis is paid for on daily-rates. The chaukidar, daffadar and other are also paid on a monthly basis.

Absenteeism.

The figures of workers on the register and of the average number daily employed, month by month were supplied by 9 gardens in the Dooars and the percentage of absenteeism in these gardens is tabulated below.

TABLE 48

Absenteeism among workers in certain tea gardens in the Doars in 1944.

th	Percentage of absenteeism			
	Men	Women	Children.	Total
January	37·02	33·56	63·42	39.11
February	37·29	26·24	59·66	35·50
March	35·15	26·10	60·99	34·53
April	31·33	28·21	63·04	34·45
May	29·36	35·55	64·23	37·49
June	31·11	35·06	69·48	38·70
July	32·24	37·62	70·18	40·48
August	33·61	40·03	69·59	42·02
September	32·53	39·66	69·58	41·54
October	28·92	35·21	66·21	37·51
November	31·27	32·98	61·50	36·69
December	31·29	40·62	62·48	40·47

Absenteeism in Plantations in Bengal 1944

The Indian Tea Association has given the following percentages of absenteeism in its reply.

TABLE 49

Average monthly earnings in Dooars and Terai in 1938 and 1943.

District	Percentage of absenteeism			
	Men	Women	Children	Total
Dooars (101 gardens)	33·3	26·6	46·1	31·8
Terai (20 gardens)	31·1	21·5	41·3	27·7
Darjeeling (33 gardens)	34·0	24·7	24·9	27·6

Absenteeism is about 27 per cent. in the cinchona plantation.

The cause of the high rate of absenteeism has often been explained by saying that the labourer has his own cultivation to attend to. This explanation does not appear to be valid for it is seen that even during the months when a cultivator has little to do on his own land, absenteeism in tea gardens is high. Many managers put it down to laziness on the part of the workers and to their belief that they earn sufficient for their needs by working about 4 days in a week. The workers, on the other hand, ascribe it to the need for rest after the tiresome and arduous work in the tea gardens. Sickness, chiefly, malaria, is also an important cause of absenteeism.

Earnings.

The following tables illustrate the average monthly earnings arrived at by dividing the total earnings by the average working strength in 9 of the sampled gardens in the Dooars in 1940 and 1944, and in 5 in the Terai and Darjeeling each in 1939 and 1944.

TABLE 50

Average monthly earnings in certain gardens in the Dooars in 1940 and 1944.

Garden	1940			1944		
	Men	Women	Children	Men	Women	Children
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
A	10 0 2	6 5 0	3 15 2	15 9 0	10 5 9	6 6 0
B	8 0 0	6 2 7	2 7 0	14 14 5	10 12 0	3 5 3
C	7 9 7	6 7 4	..	12 1 3	8 11 11	3 4 6
D	9 10 1	7 0 0	2 8 6	14 13 1	8 8 8	3 6 1
E	7 0 0	5 0 0	1 8 0	11 0 0	7 0 0	2 0 0
F	10 3 2	6 12 2	3 8 10	13 9 1	10 1 0	4 15 0
G	9 0 8	6 3 2	2 8 8	10 7 4	8 0 0	3 2 0
H	9 9 9	6 3 6	3 1 3	16 9 7	10 10 9	4 13 5
I	7 14 7	5 9 5	2 4 8	13 15 6	8 10 9	3 9 5
Weighted average	..	..	..	13 8 0	8 12 6	3 14 11

TABLE 51.

Average monthly earnings in selected gardens in the Terai and Darjeeling, 1939 and 1944.

Garden	1939			1944		
	Men	Women	Children	Men	Women	Children
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
TERAI.						
A	9 2 5	5 7 0	2 11 0	15 4 0	10 9 5	5 4 8
B	8 7 4	7 2 11	3 4 0	9 12 4	9 12 10	3 4 0
C	8 5 9	7 13 9	3 12 2	18 10 3	14 8 10	7 10 7
D	7 1 9	6 13 7	2 0 6	8 2 3	8 7 2	2 5 5
E	8 14 1	7 6 1	2 8 4	17 10 1	13 4 5	4 11 6
DARJEELING.						
A	8 5 1	6 1 0	4 5 0	10 9 5	7 6 1	5 4 4
B	8 2 1	6 8 0	3 4 0	9 12 0	8 2 1	4 1 0
C	8 9 5	6 9 3	3 5 9	13 6 1	11 8 0	6 8 0
D	8 7 0	6 12 0	2 12 10	13 8 0	10 2 1	5 1 0
E	6 13 9	5 7 6	3 5 9	8 12 0	6 14 7	3 13 9
Weighted average for the district.	..	..	..	12 4 8	9 12 10	4 9 1

The Indian Tea Association in its reply has given the following figures of average monthly earnings for the Dooars and the Terai and states that similar figures are not available for gardens in Darjeeling. The figures relate to 11 gardens in the Dooars and 20 gardens in the Terai and are based on the average of twelve months for 1938 and 1943, except in the case of the Terai where correct figures for 1938 were not available.

TABLE 52.

Average monthly earnings in Dooars and Terai in 1938 and 1943.

Year	1. Total earnings divided by the total number of the books			2. Total earnings divided by the average daily muster			3. Average monthly earnings of 30 best workers in these gardens		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Dooars									
1938	7 9 0	4 14 5	1 8 4	10 13 10	7 6 3	2 15 7	11 12 8	7 14 11	..
1943	9 15 2	7 6 6	1 15 7	14 15 3	10 2 11	4 0 0	16 12 2	12 13 10	..
Terai									
1943	13 6 0	10 14 8	5 11 2	16 5 7	12 15 1	5 12 11	18 5 10	18 8 1	6 6 1

The figures in the foregoing tables relate only to field workers. The factory workers are only a small proportion of the labour force and in most cases they are paid by time. The earnings of time-rate workers depend mainly on the amount of overtime offered and vary greatly from month to month in the season and from garden to garden. Their earnings range from Rs. 8 to Rs. 16 in the Dooars, and from Rs. 10 to Rs. 12 in Darjeeling. In the Terai they earn about Rs. 15 per month.

In the cinchona factory adults get Rs. 25 per month and boys from Rs. 8 to Rs. 14 per month.

Extent of Ticca Earnings.

The extent of *ticca* earnings in 10 gardens in the Dooars which supplied the necessary information was nearly 29 per cent. of the total earnings in 1944.

Dearness Allowance.

Dearness allowance is given to labourers in Bengal plantations at the rate of -|1|- per *hazira* to adults and -|-|6 to children. The allowance at half these rates was started in 1941 and the present rates were given in April 1944. One garden in the Dooars was found not giving any dearness allowance to its workers. The management explained that the labourers themselves asked for reduction of the different tasks in preference to the dearness allowance. Factory workers and other monthly-rated staff are paid dearness allowance at a flat rate which varies from Rs. 2 to Rs. 2-8-0 per month.

The dearness allowance paid in the cinchona plantation is Rs. 14, Rs. 11 and Rs. 7 per month for men, women and children respectively for 26 days' attendance. It is reduced proportionately for unauthorised absence from work. In the factory it is paid at the rate of Rs. 11 per month to persons getting up to Rs. 10 per month and Rs. 14 to those getting from Rs. 11 to Rs. 35.

As in Assam, more work was made available to labour in Bengal in wartime to enable them to earn more. Increased earnings on this account as well as on account of dearness allowance have been described as follows by the Indian Tea Association.

"The total annual amounts of wages disbursed from 11 sampled gardens of the Dooars and from 20 gardens of the Terai are shown separately.

Year	*Dooars*	*Terai*
	Rs.	Rs.
1937	11,66,692	5,28,513
1938	13,71,340	5,90,860
1941	11,26,198	8,32,403
1942	16,22,011	8,83,490
1943	17,97,219	10,53,189

"In these eleven gardens of the Dooars, between the years 1937 and 1943 the labour force had increased by 9 per cent. This rate of increase would bring the cash earnings of 1937 to Rs. 12,72,000. There is thus an actual increase of annas 0-6 6 in the rupee in cash earnings of the labour force between 1937 and 1943.

"As for the Terai, figures showing the variation in labour force are not available, but even assuming that the increase in labour force was much higher here than in the case of the Dooars, an increase of about 100 per cent. in the total cash earnings between 1937 and 1943 certainly indicates that cash earnings per labourer had increased appreciably by 1943".

The extent of increase in cash earnings in Darjeeling is not known to the Association.

Concessions.

The concessions or perquisites available to the garden workers in Bengal are the same as in Assam. The figures of estate as well as other land cultivated by labourers are supplied only for the Dooars and Darjeeling tea districts by the Indian Tea Association. They relate to 93 gardens in the Dooars and show that 87.8 per cent. of the families possess land and that the average holding per family is .78 acre. Majority of the gardens did not charge any rent while the others charged between Re. 1 and Rs. 5 per acre. Rent in most cases is charged only for paddy land. In Darjeeling 97.4 per cent. of the families possess land, the average holding per family being .64 acre.

In the cinchona plantation, 648 acres of land are given out for cultivation, and as the total number of families is 427, the average holding per family comes to .70 acre. A labourer must work for 12 days at least in a month to retain his land. If a labourer does not get land, he is given 0-1-0 over and above his wages per day worked.

Why the monetary value of these concessions, except that of rice and cloth, cannot be taken into consideration in assessing the earnings of the labourers has been discussed in the Chapter on Assam.

Subject to the limitations of availability of supplies, foodstuffs are issued since 1942 to labourers and their dependents on the scales and at the rates set forth below :—

Dooars.

	Adults (Weekly.)	Children (Weekly.)	Rate
Rice	4 seers.	3 seers.	Re. 5/- per maund.
Foodgrains other than rice	1 ,,		half cost price.
Dal	1 ,,		
Mustard Oil	¼ ,,		
Salt	¼ ,,		
Gur	¼ ,,		

Terai.

Rice	5 ,,		Rs. 5 a maund.
Dal	½ ,,	half these quantities.	Rates at the discretion of the manager.
Mustard Oil	¼ ,,		
Salt	¼ ,,		
Gur	¼ ,,		

Darjeeling.

	Men	Women	Children	
Rice	6 seers	4 seers	3 seers	Rs. 8 per maund.

It will be seen that in the Darjeeling tea district, rice is sold at Rs. 8 per maund as against Rs. 5 in Assam, the Dooars and the Terai.

The Cinchona plantation gives only rice at concession rate of Rs. 10-4-0 per maund. Each worker, adult as well as child, gets 4 seers of rice per week for a minimum attendance of 4 days. If a worker has non-working dependents, his quantity of rice is increased according to their number upto the maximum of 11 seers a week.

As the Indian Tea Association ration does not include non-working children, one garden in Darjeeling gives 3 seers of rice per week to each

member of a family, whether working or not. In another estate it was found that the workers sold the ration in excess of their normal requirements in the black market. To prevent this malpractice the management gives a weekly cash allowance of Re. 0-7-6 to each member of a family, whether working or not, and has opened a shop from where workers can purchase foodstuffs, cloth etc., at cost price. This has eliminated the *kaya* (garden shop-keeper) who charges higher than the market rate. In the Terai and Darjeeling, only rice is supplied at a concession price and other articles such as mustard oil, salt and kerosene oil are sold at the market rate. This limited concession is a handicap to the workers in these areas as compared to those in the Dooars.

Concession in foodstuff depends on attendance. In the Dooars full concession is given generally for 5 days' work in a week. For working less than 5 days, either the whole ration is withheld or only half ration is issued. Absence due to illness certified by the doctor is not taken into consideration. In the case of tea factory workers, a minimum of 18 days' work in the month is required for full concession unless certified sick. Several gardens in the Dooars take into consideration the paddy grown by the labourers while issuing ration. In Darjeeling and the Terai several gardens withhold rations for working less than 5 days in a week.

Cloth concession.—In the Dooars, most of the sampled gardens supply cloth and umbrellas to workers, usually at half the cost price. Cloth is issued, if and when available, but usually once a year. In the Terai and Darjeeling some gardens provide cloth at concession rate and some pay a cash allowance in lieu thereof, varying from Rs. 4 to Rs. 6 per adult and from Rs. 2 to Rs. 4 per working child per year. Darjeeling gardens give a blanket and an umbrella free every two years to their workers. Two gardens, both Indian, in Darjeeling do not give this concession, either in cash or in kind. No cloth concession is given by the cinchona plantation also.

The losses sustained on concessions of foodstuff and cloth in 1942 and the two subsequent years were furnished by 6 of the sampled gardens in the Dooars, 4 each in the Terai and Darjeeling and the average *per capita* cost per month is tabulated below.

TABLE 53

Average per capita monthly cost of concessions in certain tea gardens in Bengal, 1942-44.

Year	Dooars	Terai	Darjeeling
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1942	0 1 2	0 0 6	0 0 6
1943	2 0 10	1 8 6	1 12 2
1944	3 5 5	2 1 0	1 12 8

The Indian Tea Association in its reply has given the following figures showing the relation between the cost of concessions and the total wages disbursed in 1942 and the following year based on the figures supplied by the Agency Houses which are its members.

TABLE 54

Value of concessions per rupee of wages in Bengal plantations in 1942 and 1943.

	Total amount distributed as wages		LOSSES SUSTAINED ON CONCESSIONS.									
			Food concessions cost of feeding children		Cloth concession		Dearness allowance		Total value of concessions		Total value of concessions per Rupee of total wages	
	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	1943
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Dooars	1,16,02,810	1,27,80,440	1,44,787	53,03,039	34,692	6,05,577	3,78,025	18,62,339	5,57,504	77,70,955	0-9·2254	9-8·7427
Terai	8,83,490	10,53,189	13,574	2,10,319	Nil	32,908	..	..	13,574	2,43,227	0-2·9491	3-8·3405
Darjeeling	16,63,001	16,64,634	4,333	12,03,415	36,916	96,617	1,19,764	1,79,896	1,61,013	14,79,928	1-6·5856	14-2·6880

The total increase in cash earnings between 1937 and 1943 as a result of dearness allowance, concessions in foodstuffs and cloth and making more work available is stated by the Association as follows :—

"For the Dooars, the total value of the concessions is roughly 0-9-9 for every rupee of the total wages. If we add the increased cash earnings of 0-6-6 to this amount, it will be seen that the labourer has received cash or commodities at concession rates to the extent of Rs. 1-0-3 for every rupee of his former wages.

"In regard to the Terai, the total value of concessions per rupee is roughly 0-3-9. It has, however, been noted that in the Terai the increase in cash earnings is considerable and the total increase in the form of cash or commodities in the Terai is well over one rupee for every rupee earned before the war.

"As regards Darjeeling the comparisons are based on the figures of 35 gardens which are available to us. The total value of the concessions is roughly 0-14-3 for every rupee of the total wages. The amount of increase in cash earnings, as has been already mentioned, is not known to us. But perhaps, it is not unreasonable to assume that the overall increase in income in Darjeeling is about the same as that in other districts."

Increased Cost of Living during the War.

The general policy followed by the Indian Tea Association in Bengal to compensate the labourers to meet the increased cost of living during the war was the same as in Assam. The basic wage rates were left alone and it was decided to screen the labour from the effect of the rise in prices by supplying them with foodstuffs and cloth at concession rate and by offering them more work. There was, however, one qualification to the general policy in Bengal. To quote from the Indian Tea Association reply, it "arose from the fact that for various local reasons it was not found possible to follow this policy in Bengal and a dearness allowance consisting of 1 anna per *hazira* for adults and 1|2 anna for children is being paid in that Province. One of the reasons for this variation from our general policy was that at the time concerned it was not found possible to supply in Bengal all the commodities which were being supplied at concession rates in Assam. We refer to such commodities as dal, mustard oil, gur, etc. These commodities are now supplied at concession rates in Bengal, but the allowance has not been taken away."

There is no official of living index number in Bengal. The following table, however, shows the increase in prices of foodstuffs, etc. since the inception of the war in the Dooars

TABLE 55

Increase in prices of foodstuffs etc. since 1939 *in the Dooars.*

Articles	Pre-war prices	Current prices (January 1945)	Percentage increase.
Rice	10 srs. per Re.	2½ srs. per Re.	300
Dhan	17 srs. ,, ,,	5 ,, ,,	240
Dal	0 2 6 ,, Sr.	0 12 0 ,, Sr.	380
Salt	0 1 6 ,, ,,	0 8 0 ,, ,,	433·33
Mustard Oil	0 8 0 ,, ,,	2 4 0 ,, ,,	350
Spices	0 7 0 ,, ,,	1 8 0 ,, ,,	242·86
Vegetables	0 1 6 ,, ,,	0 8 0 ,, ,,	433·33
Fish	0 8 0 ,, ,,	1 8 0 ,, ,,	260
Tobacco	0 7 0 ,, ,,	2 8 0 ,, ,,	471·43
Dhotis	0 12 0 each	4 0 0 each	433·33
Saris	1 0 0 ,,	5 6 0 ,,	437·50
Kerosene Oil	3 8 0 per tin.	6 6 0 per tin.	82·14

The above table will show that the cost of living has gone up by at least 200 per cent. in the Dooars since 1939. Similar figures are not available for the Darjeeling district, but it may be assumed that the cost of living has gone up similarly there also. As pointed out above, the labourer's total earnings including cost of concessions has only doubled since 1939.

Hours of Work.

There are no fixed hours of work and no muster for field workers. Generally, the labourers start work at about 8 a.m. and work continuously till about 2 p.m. when they go home for meals and do not return for work. The pluckers, however, work till 5 p.m. or even later with a mid day break of about an hour or so for meals. During times of heavy flush, the field workers are asked to work on Sundays for which nearly all gardens pay them at double rates. In the factories, the hours of work vary according to the amount of leaf brought in at different periods. When there is a heavy flush on, some factories work the whole day and even far into the night on a shift system. Sometimes garden labourers are employed in factories during a rush period.

Overtime work in factories is not paid for according to the Factories Act and there is no uniformity about the method of payment. One garden in the Dooars and the Terai each pays an extra *hazira* for any time worked over 8 hours in a day. In a Darjeeling garden, overtime is paid for at one anna per hour. Two gardens, one in the Dooars and one in Darjeeling, pay overtime allowance according to the amount of tea manufactured per day over the normal output. The Dooars garden pay it on a sliding scale from 1 to 3 *haziras*, there being an increase of 1|4 *hazira* for every extra 20 or 25 maunds of tea, while the other garden pays it at the rate of one anna for every extra maund of tea. Strictly speaking, this is not an overtime payment but a sort of production bonus.

The hours of work in the cinchona factory are from 7-30 a.m. to 4-30 p.m. with an hour's recess for midday meal. Overtime is generally paid at 25 per cent. extra. Four hours' work on Sundays qualifies for a full day's pay.

Wage Period.

The system of payment of wages differs from garden to garden. In the Dooars in some gardens the total amount earned for the first *haziras* is paid monthly, but the " extra pice " or the amount earned for second and subsequent tasks is paid weekly. In some gardens the whole amount is paid weekly ; in others the whole amount is paid monthly but advances are given to workers sometimes fortnightly and sometimes oftener if required by them. In the Terai and Darjeeling labour is generally paid weekly on every Saturday. Payment is monthly in the cinchona plantation. The Superintendent stated that weekly and fortnightly payments were tried but were not liked by the labourers as their credit is on monthly basis. Factory establishment is paid monthly everywhere.

Payment is made directly by the manager except in some gardens in all these areas where the old system of paying the workers through the sardars is still continued. It also prevails in the Government cinchona plantation. This system is intended to give security to the sardars for the loans advanced by them to the labourers. It was actually stated by the managers of two gardens where this system prevails that the sardars were so powerful that they often disobeyed them. The workers also stated that the sardars did not pay their full wages but kept 0-0-3 per rupee as their commission, on top of the commission that is given by the estate. The system is pernicious and should be completely eliminated as soon as possible.

Fines.

Fining of labourers for bad work is not in vogue, though fine is imposed in some gardens for loss of implements etc. One manager stated that he returned the amount to the worker at a later date subject to good work. The amount of fine does not generally exceed Re. 1.

Holidays.

Sunday is usually observed as a holiday on tea estates. During the tea making season, however, factories work on Sunday and observe the following Monday as holiday. Sunday is not also observed as a holiday during times of heavy flush. Two to four unpaid holidays are given at the Puja time.

Sardar's commission.

The sardar usually gets from the estate a commission at the rate of one pice per head of first *hazira* ; in other words, he is paid one pice per day for every worker under him who turns out to work. Further, he may be employed as a chaukidar or daffadar and for this he receives his usual pay. In addition, he receives Rs. 5 for every new recruit who stays on the garden for a minimum period of 12 to 18 months and the amount is paid to him at the end of that period. In some gardens in Darjeeling some of the labourers are under no sardar and are known as Nijapati labourers. Such labourers in some gardens get the commission which goes to the sardar. The sardars do not supervise the work of their men. The sardars in the Terai and Darjeeling where there is little or no recruiting are descendants of old sardars who did recruiting. The main functions of the sardars are to guarantee the advances made to his labourers, give them loans, settle their quarrels, report about their illness and see that they turn out to work. It is interesting to note that during the recent Government enquiry in the cinchona plantation, the younger generation of labourers voted against the sardari system.

HOUSING AND SANITATION.

Existing Facilities.

As in Assam, housing is provided by all estates to the settled or resident labour. In the Dooars, the houses are built in ' barrack lines ' scattered over the gardens. Even in these lines each house has usually its own separate compound, though in many cases the houses are built quite close to one another in rows with about 20 feet between two rows. The houses are constructed with a bamboo or iron frame, have walls of bamboo matting plastered over with mud and have generally thatched roofs. The mud plaster falls apart after the lapse of a short time and many labourers complained that it was very difficult to keep themselves warm in the winter months. In several cases, the walls of the houses were made up of pieces of plywood sheets from old discarded tea chests or rejected tin sheets nailed haphazardly on to the bamboo skelton structure. Usually all the houses are repaired once a year by about February. Materials such as bamboo and thatch are supplied by the estate and the workers repair their houses for which they are paid on *haziri* basis. This provides them with work at a time when the amount of work available on the estate is at a low ebb. Sometimes the work of repairing is given out to contractors.

The average size of a house is 225 sq. ft. The length varies from 14 ft. to 26 ft. and the breadth from 11 ft. to 14 ft. Inside the house, labourers make partitions with the usual bamboo matting or plywood to suit their requirements. One house is given to each labourer and if he has a big family, he can put up a lean-to for extra accommodation. The houses have low roofs and insufficient light. Where windows are provided, they are generally closed by the inmates either to keep out the bleak wind or on

superstitious grounds to keep out evil spirits. The lack of proper light appears to be the main cause of the high incidence of phthisis in tea gardens. The houses have usually a plinth of 3 inches to 16 inches. One garden has put up a few pucca houses as a part of a new housing scheme which had to be suspended due to shortage of cement and other building materials. The floor in these houses is kutcha and the roof is of corrugated iron sheets.

The houses in the Terai are similar to those in the Dooars except that they have practically no plinth. In Darjeeling the houses are built of wooden plank walls and corrugated iron sheet roof, but the houses built since 1939 are of bamboo and mud walls with thatched roof as on the plains, because wooden planks have become very expensive and iron sheets are scarcely available since the out-break of the war. The workers prefer the latter type of houses which are more comfortable in winter, but the managements seemed to favour the wooden houses which do not require repairing charges as the thatched houses do. The floor is invariably kutcha. As the houses are usually built on those parts of the garden which are not well drained, the floor gets very damp in the rains and the workers catch cold very easily. The average height of the roof is not more than 10 feet. This coupled with the lack of ventilation makes the houses very dark and stuffy. Some houses have a small verandah which is sometimes utilised for cooking. In other cases the workers always cook inside the house and as the smoke cannot escape for want of any outlet, the atmosphere inside the houses becomes very unhealthy. In cinchona plantation, too, the houses are like the recent ones in the Darjeeling tea gardens and are usually built by the labourers who are given wages and material.

Almost all houses have a small compound which is fenced off in some cases. This land is used for growing vegetables, maize, etc. Those who possess cattle build their own cattle sheds near their houses. Separate kitchens and bathrooms are seen nowhere. Most of the houses are not constructed according to any plan but are built haphazardly. This is especially the case in those gardens where workers are given materials by the managements to build their own houses according to their requirements. Generally each line or group of houses is allotted to the workers under one sardar to enable him to keep an eye on them and to get them out for work. Considerable improvement is necessary in housing and houses should be built on well-drained sites. It is also necessary to provide windows and to train the labourers to keep them open by gradual persuasion. These steps are essential if the health of the workers is to improve and the incidence of sickness is to be minimised.

Water Supply.

In the Dooars, the water-supply is adequate and is either from *kutcha* wells or from pipes which carry spring water to the lines. Many gardens have provided concrete reservoirs in the lines for storing water. A few pucca wells were also found. Water supply also is adequate in the Terai where 'Ranigunj Ring' wells have been dug up near lines. In the majority of the gardens in Darjeeling, no special arrangements have been made for supplying water to the workers who get it from the small springs that flow through their garden. This causes considerable difficulty to workers as some of the springs go dry in summer, as water may be contaminated and as they may have to go a long distance for water if the spring is not near their line. Only in one garden were pipe lines laid from the springs and reservoirs constructed near each line. Spring water is carried by bamboo pipes to workers' lines in cinchona plantation. Pipe lines can be laid by all the gardens and concrete covered reservoirs built near each line to store water for constant supply to the workers

Sanitation.

Majority of the gardens have no latrines in the Dooars. Many estates had built bore-hole latrines in the lines but they have fallen into disuse. One garden, in particular, had built 120 such latrines with cement squatting plate and bamboo structure around each, but they were also not in use and the fencing was said to have been removed at night by the labourers for use in their huts. In the other areas also very few gardens have latrines for their field labour. In some gardens latrines were built by workers. There are no latrines in the cinchona plantation also. As stated in the Chapter on Assam, the labour can be easily trained to use latrines, provided a separate latrine is given to each family and povided it is kept clean. Many labourers stated that they would use latrines provided they were clean.

In the tea factories, the provisions of the Factories Act have been complied with in all areas and both bore-hole and septic tank latrines are in use.

Drainage.

There is a complete absence of proper drainage system in all the areas. No drains, either kutcha or pucca, have been built near the lines anywhere.

HEALTH AND WELFARE.

Birth and Death Rates.

The following table shows the birth and death rates on the sampled as well as on all the tea gardens in the Dooars for the years 1938-39 to 1943-44. The information for all gardens is obtained from the Civil Surgeon, Jalpaiguri's Annual Report on the working of the Jalpaiguri Labour Act for these years.

TABLE 56

Birth and Death rates on Dooars Tea gardens, 1939-44 (*per thousand population*).

Year	Birth rate		Death rate	
	15 gardens	All gardens	15 gardens.	All gardens.
1938-39	not available	39·81	not available	24·41
1939-40	39·60	38·47	20·61	22·64
1940-41	41·70	42·04	22·67	23·17
1941-42	41·13	38·50	22·78	22·92
1942-43	41·48	39·23	26·42	24·46
1943-44	32·10	31·23	28·45	30·12

It will be seen that the death rate has been steadily going up while the birth rate in 1943-44 has been the lowest since 1939.

The following table[1] shows the rate of infantile mortality in all the gardens in the Dooars for 1938-39 to 1943-44.

TABLE 57

Infantile mortality in Dooars tea gardens, 1939-44 (*per thousand births*).

1938-39	105·82
1939-40	82·96
1940-41	114·18
1941-42	111·67
1942-43	111·40
1943-44	114·72

[1]Compiled from the Annual Report on the Working of the Jalpaiguri Labour Act for the respective years.

The following table shows the birth and death rates in 4 gardens in the Terai and 5 gardens in Darjeeling for 1942 to 1944.

TABLE 58

Birth and Death rates in some Terai and Darjeeling tea gardens, 1942-44. (per thousand population).

Year.	Terai		Darjeeling	
	Birth rate	Death rate	Birth rate	Death rate
1942	27·21	39·21	35·04	28·17
1943	23·94	36·30	35·47	28·93
1944	20·71	37·94	19·89	19·56

Medical Aid.

Most of the gardens in the Dooars have dispensaries and common medicines for treatment of their labour. There is, however, a distinct lack of well qualified doctors and, in fact, some gardens have only compounders. The highest qualification of any resident doctor in the 15 sampled gardens is the L.M.F. The Annual Report on the Working of the Jalpaiguri Labour Act for the year ending 30th June 1944 states that 44 gardens in the Dooars have no qualified resident doctor. It is true that all European-owned and some Indian-owned gardens are visited once a week by a group Medical Officer who is paid by the gardens in the group on an acreage basis. But in serious cases, it is often very difficult to avail of his services on account of the gardens being so widely scattered and the absence of telephonic communication. Very serious cases are usually removed to the Civil Hospital, Jalpaiguri, by the garden lorry if the garden still happens to possess one, as most of them have been requisitioned by the military authorities. Ten out of the 15 sampled gardens have provision for indoor accommodation. It is good and adequate in a few cases, while in others, it consists of a room or two with a few beds to take in such of the labourers as could be persuaded to enter such uncomfortable surroundings. The contrast between the good and bad gardens in this respect is so great that it is desirable that some sort of standard arrangements be made to provide for minimum requirements. During the time of the survey, indoor patients were found only in 4 gardens which had arrangements for cooking of food for the in-patients. Absence of such arangements is responsible for the unwillingness of the workers to admit themselves as in-patients. A few gardens pay a daily *hazira* to a relative of the in-patient to act as attendant and cook food for him.

The common ailments in the Dooars are malarial fever, dysentery, diarrheoa, phthisis, and other respiratory diseases. The following table[1] shows the number of deaths from the principal diseases in the tea gardens during 1939 to 1944.

TABLE 59

Number of deaths from principal diseases in the Dooars tea gardens, 1939-44.

Year	Total population	Fever	Dysentery & Diarrhoea	Cholera	Phthisis	Chest Complaints	Kala-azar	Black water fever
1938-39	285,789	1,326	1,175	26	477	1,061	9	8
1939-40	290,174	1,228	1,024	41	490	802	9	8
1940-41	291,253	1,314	950	5	541	736	10	9
1941-42	285,877	1,142	1,065	9	528	648	20	5
1942-43	289,239	1,244	1,104	8	517	765	48	8
1943-44	275,398	1,256	1,181	144	543	241	28	11

[1]Compiled from the Annual Report of the Jalpaiguri Labour Act for the respective years.

As regards medical and public health expenditure (including maternity benefits, etc.), the Indian Tea Association states in its reply as follows : " In the case of the Dooars, figures have been collected for 5 years ending with the present year 1944. They show an average annual expenditure of 11,79,000 rupees but this does not include the sums spent on anti-malarial work. As the acreage of gardens in Assam is about two and half times that of the Dooars, there is clearly no significant difference in the scale of expenditure in the two provinces ".

Out of the 13 sampled gardens in the Terai and Darjeeling, 7 have qualified doctors and 6 have compounders. The Darjeeling Planters' Association stated that the majority of the gardens in Darjeeling had only compounders. The majority of the dispensaries, however, had only a few medicines for preparing fever mixtures and first aid accessories. In serious cases, the patients are sent to the nearest hospital but this takes a long time as the gardens are in most cases far from the towns. Very few gardens have indoor accommodation. Only one garden in the Terai and two in Darjeeling have such accommodation. Two of them have four beds each and the third has six. At the time of the survey, one of these hospitals had been temporarily closed and used for storing rice and paddy.

The chief ailments in the Terai and Darjeeling are respiratory diseases. Phthisis is very common in Darjeeling and is probably due to bad housing arrangements. Quite a large number of workers in the Terai suffer from malaria and kala-azar, while dysentery, hill-diarrhoea, and hookworm are common among the workers on the hills. Complaints of sores and itches on the ankles and thighs are frequent among the labour in Darjeeling, especially in the rains when the workers have to work on the fields with wet clothes.

The following table shows the medical expenditure, excluding money spent on anti-malarial measures, in 3 gardens in the Terai and 6 in Darjeeling in 1942 to 1944.

TABLE 60

Medical expenditure in rupees in some Terai and Darjeeling tea gardens, 1942-44

District	Total population	1942			1943			1944		
		Medical heads	Maternity benefit	Sickness benefit	Medical heads	Maternity benefit	Sickness benefit	Medical heads.	Maternity benefit.	Sickness benefit
Terai . . .	3,541	7,615	614	778	12,196	646	1,097	8,362	952	1,448
Darjeeling . .	10,148	13,960	2,454	4,330	19,750	1,965	7,028	18,422	1,316	7,542

Anti-malarial Measures.

Very little anti-malarial work is being done at present in the Dooars and what little is done is confined to shading and draining of streams. Malaria was very pronounced in the Dooars some years ago and was being gradually brought under control by anti-malarial measures but the situation has again deteriorated in recent years. In one garden the spleen rate of children was 82 per cent. Only one garden was found to have a trained malarial surveyor. In the Terai and Darjeeling also very few gardens have done any anti-malarial work, in spite of heavy incidence of malaria. The little work that is done in a few gardens is confined to spraying wells occasionally in the lines.

Sickness Benefit.

In the Dooars payment of *hazira* to sick patients was said to be customary, but it was found during the enquiries that it was given only to those who were very ill. Workers stated that when they approached the doctor, they would be given some medicine and told to go back to work as they were not sick enough to be entitled to leave and consequently to sick *hazira*. This was said to be due to the managers' instructions to the doctors not to encourage malingering and not to recommend leave very often.

In the Terai and Darjeeling all the sampled gardens, except one in the Terai, give sickness benefit in one form or another to persons who are recommended by the estate doctor or compounder. The benefit paid is the daily *hazira* in 8 gardens, a slightly lower rate than the *hazira* in 1, and 1|2 the *hazira*, in 3 gardens. One garden in Darjeeling gives no cash benefit but supplies cooked food from the hospital to the sick worker and his dependents

Maternity Benefit.

The Bengal Maternity Benefit Act, 1939, does not apply to plantations. The Bengal Maternity Benefits (Tea Estates) Bill, 1941 was adopted by the Bengal Legislative Council on 8th September 1941, but it is still before the Legislative Assembly. The main features of the Bill are (1) prohibition of employment of women for four weeks immediately following confinement ; (2) payment of maternity benefits of Rs. 12 either fully in cash or partly in cash and the balance in kind, in respect of a period of 8 weeks, 4 before and 4 after childbirth ; (3) qualifying period to be 150 days worked under the employer in the twelve months period immediately preceding the day of delivery and (4) benefits to be conditional on the applicant attending, during the 4 weeks before confinement, ante-natal clinic or other medical institutions prescribed by the Inspector of Factories, the provision of medical facilities being an obligation of the employer.

Though the benefit is paid by most of the sampled gardens in the Dooars, there is no uniformity in the matter. The payment varies from Re. 0-3-0 to Re. 0-10-0 per week extending over a period of about 3 to 4 months. Some gardens make a lump sum payment of Rs. 5 and Rs. 10 before and after the birth respectively. In addition to the maternity benefit, some gardens give Rs. 5 as bonus if the child is alive and healthy at the end of the year. The total maternity benefit paid varied from Rs. 10 to Rs. 18-8-0.

In the Terai and Darjeeling also, there is no uniformity about payment of the benefit. All the sampled estates, except one, pay it and the amount varies from Rs. 2-8-0 to Rs. 19-8-0. To induce mothers to take proper care of their children, two gardens in Darjeeling give them a bonus of Rs. 5 if the child is alive and healthy at the end of the year. One of these estates goes further and gives a second instalment of Rs. 5 to the mother if the child is alive at the end of the second year.

Generally no arrangements are made by gardens for treatment of pre-natal and post-natal cases. In most of the gardens, the resident doctor or the compounder, as the case may be, is supposed to conduct ante-natal and post-natal examination of the women who attend the dispensary once a week, on days fixed for the purpose. On such days the daily *hazira* is paid so that there may be no loss of earning consequent on the attendance at the dispensary. No pressure is exercised to enforce regular attendance. Deliveries usually take place in the lines as women are disinclined to go to hospitals in charge of male doctors. To prevent the high rate of infantile mortality, one estate in Darjeeling has engaged a trained nurse and the result has been encouraging.

Creches.

Creches are rare in the Bengal plantations. One or two gardens in the Dooars have well-built and clean creches but they were not utilised by the mothers. One garden tried the introduction of a mobile creche consisting of a tent with the necessary equipment and a woman in charge. The tent was moved from place to place in the garden and the children near about were looked after while their mothers were working in the vicinity. It was stated that after sometime the mothers refrained from making use of this amenity.

Free Feeding of Children.

Many gardens in the Dooars have started the practice of giving a free midday meal to children when the effects of malnutrition were becoming evident. A typical meal consists of rice, dal, vegetables and one garden occasionally gives even fish and mutton. In one garden children were sitting in dust while taking their free meal. The doctor, when asked, stated that he had suggested better seating arrangement to the manager who, however, said that they were used to it. Full advantage is not, however, taken of this amenity by workers who take their children with them to work. Some managers, on the other hand, refused to introduce free feeding on the ground that such feeding should be the sole responsibility of parents and that by its introduction an element of irresponsibility is allowed to creep into the attitude of the parents towards their children.

No free feeding of children was noticed in the Terai. In Darjeeling only two gardens feed their non-working children once a day, the average number fed per day being 6 and 30 respectively. Some other gardens introduced free feeding but stopped it as sufficient number of children were not coming to the feeding centre owing to its being at a considerable distance from the lines.

Schools.

All the gardens, except one, surveyed in the Dooars have schools which come under the purview of the District School Board, Jalpaiguri. Even the garden which has no school now had one last year, but as the teacher left for a better job it had to be closed. The income of the Board is largely provided by a cess of which about one-third is contributed by the tea gardens at the rate of Re. 0-8-0 per acre. The Board usually pays Rs. 18 per month to the teacher and this salary is supplemented by the gardens with an allowance. The salary of teachers varies from Rs. 25 to Rs. 40 per month in different gardens. It was complained by the Indian Tea Planters' Association, Jalpaiguri, that the School Board did not sanction the opening of new schools in tea estates.

School buildings and tuition are provided free by the estates, but not books and writing materials in all cases. One garden had a night school for adults which was said to be popular but was shut down by the Inspector of the District Board. Attendance of the children in schools is very poor and the majority of the children belonged to the Indian staff. As long as the children are employed on the states, there can never be any improvement in their attendance.

The following figures regarding schools and attendance are supplied by the Indian Tea Association

TABLE 61

Number of schools and average daily attendance in Dooars tea gardens, 1941-43.

Year	Number of schools	Number of pupils	Average daily attendance
1941	150	6,732	4,218
1942	146	6,723	4,596
1943	149	5,130	3,423

In the Terai and Darjeeling out of the 13 sampled gardens, only two in the Terai and one in Darjeeling have their primary schools. In five gardens there are primary schools started by the Scotch Missionaries and five gardens did not have any school at all. It is interesting to note that in one garden in Darjeeling which does not employ children below 12, the daily attendance of children in the school is high. Education is free in all estates except one, and the daily average attendance is between 20 and 30. The attendance is found to be generally poor in winter months, as the earnings of the workers are less during this season, and they naturally like their children to supplement the family earnings.

Recreation.

Sports and other recreations are almost non-existent in the Dooars during the last few years owing to the war. Formerly foot-ball, hockey, cinema shows and plays were said to be pretty common. Equipment for sports is not easily available and the European assistants who were taking keen interest in foot-ball and hockey were away on war service. Cinema shows, etc., were formerly shown by small travelling companies which toured the gardens once a year with conjurors, actors, etc. The cost of all these activities was never more than Rs. 100 per year in any garden. An innovation has been recently started by the Indian Tea Planters' Association, Jalpaiguri, by holding annual sports consisting of items such as tug-of-war, skipping races, archery, etc.

The position is about the same in the Terai and Darjeeling.

Drinking.

In the Dooars, drinking is not quite so heavy as it used to be when rice for home brewing was easily available. Even now labourers make their own *pachwai* or *haria* from paddy cultivated by them. A licence for home brewing for domestic consumption has to be obtained from Jalpaiguri on payment of Re. 1 per head per annum. This amount is paid by the estate, but many labourers do not take out the licence. Workers also resort to liquor shops situated either inside or outside the estate. Sometime ago a scheme of prohibition was introduced by Government but it was not very effective.

Home brewing is also common in the Terai and Darjeeling, though at present it is curtailed to a great extent owing to the shortage of rice. The Napalese and other hill tribes are not so fond of drinking as the Santhals on the plains. Both the *Paharias* and the Santhals also visit the neighbouring liquor shops.

Gambling.

Gambling is a past-time one would expect to find among people without other means of spending their leisure hours. In the Dooars and the Terai, it is not indulged into a great extent, except on the bazar days. The *pahari*

labourers in Darjeeling are great gamblers and it is not unusual to see them spending the whole Sunday in gambling.

Indebtedness.

No information could be obtained about indebtedness to moneylenders. The main source of credit appears to be the estate itself and no interest is charged by it. The following table shows the amount of debt outstanding at the end of 1944 in 7 gardens in the Dooars.

TABLE 62

Incidence of indebtedness in certain Dooars gardens, 1944.

Garden	Number of workers on books	Amount of debt	Incidence per head
		Rs. A. P.	Rs. A. P.
A	2,234	8,559 4 0	3 13 0
B	890	8,000 0 0	9 0 0
C	2,212	5,263 10 0	2 6 0
D	998	5,000 0 0	5 0 0
E	797	1,443 0 0	1 13 0
F	1,285	790 0 0	0 10 0
G	1,333	512 0 0	0 6 0

The usual borrowers are the carters who take loans from the estate mainly for purchase of bullocks. For instance, in garden A above, Rs. 6,539 were owed by carters and Rs. 1,857 by sardars and labourers. The remaining amount of Rs. 163 was owed by the Indian staff and factory establishment. The majority of loans taken by sardars and labourers are on account of marriages and other social ceremonies. Some gardens do not encourage the granting of loans as it involves more work on the management. There is a complete absence of professional moneylenders. In some cases it was found that the labourers borrowed small amounts now and then either from the sardar or the Indian staff. These loans carry nominal or even no interest.

No indebtedness to the estates was noticed in the Terai and Darjeeling gardens.

Pension.

Old labourers are put on light work such as road cleaning etc., as long as they can do it. A pension of 3 annas or so a day is given by some gardens to old workers who have nobody to support them, but there is no regular system of pension. One garden in Darjeeling has a compassionate fund which is formed by labourers contributing one anna per week. No contribution is given by the garden. The fund is controlled by the garden committee consisting of *munshi, daffadar* and others and small payments are made in deserving cases.

There is no provident fund or pension on the cinchona plantation, but Rs. 5 are given per month as a compassionate allowance to old employees.

EMPLOYERS' AND WORKERS' ORGANISATIONS.

As stated before, about 78 per cent. of the acreage under tea in Bengal is under the membership of the Indian Tea Association. It has three affiliated associations namely, the Dooars Planters' Association, the Terai Planters' Association, and the Darjeeling Planters' Association. Besides these associations, there are the Indian Tea Planters' Association, Jalpaiguri,

started in 1914, and the Terai Indian Planters' Association. There is no separate Indian Planters Association in Darjeeling. The Indian Planters' Association, Jalpaiguri, has 71 gardens and nearly 38,000 acres of tea under its membership ; 43 gardens in the Dooars with 26,724 acres, 14 gardens in the Terai with 5,986 acres and 14 gardens in Assam with 5,273 acres. The Terai Indian Planters' Association has 18 member gardens with a total acreage of 7,455. The acreage of Indian-owned gardens forms about 20 per cent., 33 per cent., and 15 per cent., of the total area under tea in the Dooars, the Terai and Darjeeling respectively. The plantation labour have no organisation at all. They are all unorganised and helpless. The Dooars Planters' Association stated that there were only two small strikes in the last 5 years, while in the Terai and Darjeeling there was said to be no ' labour trouble '.

CHAPTER IV.—SOUTH INDIA.

Unlike North India, South India has got all the principal plantation crops, *viz.*, tea, coffee, and rubber. In fact, coffee and rubber plantations are confined to South India. Though plantation crops usually require a large capital outlay and considerable labour force, they may also be grown in small holdings. A small holding may be defined as a holding on which plantation crops are grown by a culivator and his family with the help of occasional outside labour. The small holding is, in fact, an important feature in the cultivation of coffee and rubber.

South India contains 19 per cent. of the total area under tea in India. Of the tea areas in South India, Madras and Travancore have 48 per cent. each and Mysore and Cochin 3 per cent. and 1 per cent. respectively. Coorg has only about 400 acres under tea. Of the total area under coffee, Mysore has 37 per cent., Madras 36 per cent., Coorg 20 per cent., Travancore 6 per cent. and Cochin 1 per cent. Of the rubber area, 76 per cent., is in Travancore, 11 per cent. in Madras, 10 per cent. in Cochin, 2 per cent. in Coorg and 1 per cent. in Mysore.

METHOD OF SURVEY.

The Supplementary Questionnaire on Plantations was sent to the Governments of Madras, Coorg, Mysore, Cochin and Travancore, and to individual estates and district associations of planters through the agency of the United Planters' Association of Southern India. In all, 600 copies of the Questionnaire were issued to the estates which included both members and non-members of the United Planters' Association. Replies were received from all Governments except Travancore. In addition to the reply received from the United Planters' Association of Southern India, 120 replies were also received, which related to 219 estates, many estates belonging to the same group having sent in joint replies. The replies received represent a total acreage of 137,783, consisting of 94,734 acres of tea, 17,358 acres of coffee, 20,778 acres of rubber and the rest cardamom and pepper ; or roughly 58 per cent. of the area under tea, 8 per cent. of the area under coffee and 14 per cent. of the area under rubber.

140 estates were sampled out for detailed investigation and are listed in Appendix X. Of these, 40 were tea estates, 61 coffee estates and 30 were rubber estates. The remaining, namely, 9 were estates where more than one crop was grown and they were mostly under tea and rubber. 71 estates were Indian-owned and 69 European-owned. The sampled units represent 23,740 acres

of tea, 22,160 acres of coffee, 19,464 acres of rubber and 12,045 acres of mixed crop. In addition to the sampled estates, some other estates were visited by me and by the investigating staff and their list is given in Appendix XI. I toured for over a month in the plantation areas and visited 41 estates.

The principal guiding factors in selecting the samples were the size of the estate, the geographical distribution and the nature of ownership and management. Care was taken that estates of all sizes, except the very small holdings, from all important planting districts and under Indian as well as European management were included in the sample. Company-owned as well as private-owned estates were selected.

Though there are no organisations of workers in the plantation industry, two valuable memorandà were received urging the workers' case, one from the Travancore Trade Union Congress and the other from a private individual who has made careful study of the labour problems in the plantation industry. The memorandum prepared in 1938 by the Anamallais Workers' Union, now an extinct body, for presentation to the Hon'ble Minister for Labour in Madras was also made available to the Committee.

LOCATION AND STRUCTURE.

Geographical Distribution.

With the exception of a small area of coffee in the Shevaroy Hills in the Salem district, the plantation crops are restricted to the Western Ghats and its associated ranges and the western foot-hills of the Ghats. They extend from the Bababudin Hills in the Kadur district of Mysore State to the extreme south of the Peninsula. Practically all the areas cultivated were formerly in evergreen or mixed forests which were largely uninhabited before they were developed for these crops, though in the lower areas on the West Coast and the districts north of the Nilgiris, there was a local population largely concentrated in the wider valleys where rice and arecanut were produced.

Nearly all the plantation crop areas are in regions of heavy rainfall varying from 50 to over 300 inches. With some exceptions, mainly in the Nilgiris, Shevaroy and Palni Hills, the greater part of the rainfall occurs in the months of June, July and August, and there is usually a more or less extensive dry season from November to March.

The elevation of the plantation areas varies from a few hundred feet above the sea to 7,000 feet, but the greater part lies between 3,000 and 4,000 feet. This involves a climate with a maximum temperature between 90° and 100°F. in April-May and a minimum temperature of about 50°F. in January. The daily range is considerable except during the wet season. These factors are of importance in relation to living conditions.

Requirements of Plantation Crops.

The climatic requirements of the crops differ somewhat though they all require a rainfall normally exceeding 40 inches per annum. Tea does best with a well distributed rainfall throughout the year, but is grown commercially in every planting district in South India except the Shevaroys. Coffee will also grow in practically every planting district, but its commercial cultivation, at least as far as the better quality arabica coffee is concerned, is almost entirely restricted to the districts north of the Nilgiris at elevations over 3,000 feet where the dry season is well marked. The coarser and more vigorous robusta grows well in most districts below 3,500 feet and has developed considerably as a small-holder's crop in the western foot hills of Travancore. Rubber demands a moist tropical climate and it is almost entirely

restricted to the low western foot-hills of the Ghats from Malabar to South Travancore. There is very little rubber cultivated above 2,000 feet.

Beyond the fact that land formerly under evergreen and monsoon forest is almost essential for plantation crops, the type of soil within these limits is of relatively small importance provided drainage is good and the soil depth is satisfactory. Tea, however, demands a more acid soil than coffee or rubber and has grown well in land formerly carrying coffee.

Number and Area of plantations.

The following table, based on the statistics furnished by the Director-General of Commercial Intelligence and Statistics, illustrates the distribution of the plantation crops in South India :—

TABLE 63

Number and Area of Plantations in South India.

District	Tea, 1942		Coffee, 1943 (*a*)		Rubber, 1942	
	Number	Area (acres)	Number	Area (acres)	Number	Area (acres)
Madras.						
Vizagapatam	..	..	3	217	..	..
Madura	5	1,069	549	8,768	1	422
Tinnevelly	2	588	5	300	..	..
Coimbatore	34	24,775	11	2,835	2	644
Nilgiris	2,047	39,740	385	19,361	8	915
Salem	..	..	81	8,862	4	134
South Kanara	..	..	2	11	..	..
Malabar	55	13,654	518	14,147	52	13,931
Total, Madras	2,143	79,826	1,554	54,501	67	16,046
Coorg—	1	415	2,132	37,446	7	3,122
Total, Br. India	2,144	80,241	3,686	91,967	74	19,168
Mysore—						
Mysore	..	..	3	439	..	..
Hassan	..	..	1,430	27,820	..	..
Kadar	..	..	1,706	68,526	..	..
Shimoga	..	..	21	24	..	..
Total, Mysore	15	4,448	3,160	96,809	10	640
Travancore	220	77,252	17 (*b*)	1,073 (*b*)	14,451	104,546
Cochin	9	1,677	17	1,726	147	13,834
Total, Indian States	244	83,377	3,194	99,608	14,608	119,020
Grand Total, South India	2,388	163,618	6,880	191,575	14,682	138,188

(a). Does not include plantations below 5 acres.

(b) Figures relate generally to Company-managed estates only.

The latest available figures for total acreage under coffee and rubber in 1944 as supplied by the Controller of Coffee and the Indian Rubber Production Board are as follows :—

Coffee	206,153 acres.
Rubber	149,062 acres.

Not all the area listed above can be classed as plantations for it includes small holdings. It is very difficult to strike the dividing line between a small holding and an " estate ", which is the generic term for a large holding under a plantation crop. The Planting Directory of Southern India has classified holdings of 10 acres or more as estates. The Payment of Wages Act, 1936, defines a plantation as any estate which is maintained for the purpose of growing cinchona, rubber, coffee or tea and on which 25 or more persons are employed for that purpose. The Assam Maternity Benefit Act, 1944, defines a plantation as an estate in which ten or more women are employed at any time during a year. The Travancore Public Health Bill, 1943, defines an estate as " any agricultural land where there is a labour population of more than twenty persons who are resident on the land for not less than thirty consecutive days in the year ". The Association of Planters of Travancore, however, suggested to the Travancore Government that a plantation should be defined as " an area of hundred acres or more, or any agricultural land with more than twenty-five resident labourers ". In the course of a discussion, the Mysore Planters' Association and the Indian Planters' Association of Mysore suggested that estates below 100 acres be treated as small holdings.

Careful consideration has to be given to the relative size of holdings under different plantation crops and the extent of employment required therein as also to the contiguity of planted areas before deciding on a definition of ' plantation ' or ' estate ' with a view to legislation. If the definition is too narrow in scope it would penalise the larger owners, while if it is too wide it would make administration of any legislative proposals unwieldy and cumbersome.

The total acreage of the chief plantation crops in holdings below 10 acres according to the Planting Directory of 1940 is shown below :—

TABLE 64

Small Holdings, 1940.

Crop	Below 10 acres Total acres.	Above 10 acres Total acres.	Total acres.
Tea	3,200	161,732	164,932
Coffee	30,544	169,234	199,778
Rubber	21,444	107,317	128,761

A rough idea of the size of holdings in tea, coffee, and rubber may be formed from the following figures taken from the same Directory.

TABLE 65

Classification of Holdings, 1940.

Size	Number of Estates		
	Tea	Coffee	Rubber
Having a planted area of over 1,000 acres	22	*Nil.*	20
Between 500 and 1,000	103	28	28
,, 200 and 500 ,, ...	100	171	37
,, 50 and 200 ,, ...	121	664	197
,, 10 and 50 ,, ...	233	1,308	776
Total ..	579	2,171	1,058

It would thus appear that coffee and rubber are just as much a small farmer's crop as a plantation crop.

The following figures kindly supplied in this connection by the Controller of Coffee and the Indian Rubber Production Board are of interest :—

TABLE 66

Classification of Coffee Estates, 1944.

State/Province	Estates below 25 acres				Estates of 25 acres and above				Total (acres)
	Number	Area in acres			Number	Area in acres			
		Arabica	Robusta	Total		Arabica	Robusta	Total	
Mysore ..	3,387	9,851	296	10,147	658	61,439	9,352	70,791	80,938
Coorg ..	2,305	7,006	708	7,714	238	26,430	7,128	33,558	41,272
Madras ..	11,255	19,178	13,164	32,342	565	42,025	9,576	51,601	83,943
Total ..	16,947	36,035	14,168	50,203	1,461	129,894	26,056	155,950	206,153

The proportion of area under robusta has been increasing of late which is to be regretted, for the good name of Indian Coffee was built up on its arabica. The reasons, however, for its extended cultivation are natural. It was found that the expenditure on its upkeep was very much less than in the case of arabica, for it is subject to few pests and no diseases. When times are bad, expenditure on robusta can be reduced to a figure which would ruin arabica coffee. In addition, for small growers, the harvesting of the robusta crop which is a late one fits in admirably with their paddy crop, as after harvesting paddy the same labour can be transferred to harvesting robusta coffee. The arabica crop and the paddy crop, on the other hand, both require harvesting at the same time.

TABLE 67

Classification of Rubber Estates, 1944.

Size of Estate	No. of estates	Area (acres)
1,000 acres and above	27	42,893·60
Between 500 and 1,000 acres	25	17,378·97
,, 200 and 500 ,, ...	55	16,347·15
,, 50 and 200 ,, ...	252	23,449·48
,, 10 and 50 ,, ...	1,103	20,489·11
Below 10 acres	13,607	28,503·42
Total ..	15,069	149,061·73

Planting Districts.

1. *South Travancore.*—This district lies on the two sides of the Shencottah gap in the valleys of the Western Ghats on the western face. The crops grown are tea and rubber, and the elevations range from 500 to 3,000 feet and are generally wet. Its main local centre is Kalthuruthy, about five miles from Tenmalai Railway Station on the South Indian Railway. Its main source of supplies, etc., is Trivandrum.

2. *Mundakayam.*—A district somewhat similarly situated with respect to the main range of the Western Ghats, but with a larger highland plateau to the east of it. This is primarily a rubber area, although there are some mixed tea and rubber estates. In some cases tea and rubber are inter-planted. Its main local centre is Mundakayam and the supply centre is Kottayam.

3. *Central Travancore.*—This covers the Southern part of the plateau east of Mundakayam. This is an almost exclusively tea district, with estates between 3,000 and 4,500 feet elevation. The local centres are Peermede and Vandiperiyar.

4. *Kanan Devans (Munnar).*—This is a large compact district in the Northern Highlands of Travancore, consisting of tea estates ranging in elevation from 4,500 to 7,000 feet.

All these districts are situated in Travancore and include 48 per cent. of the tea and 76 per cent. of the rubber in South India.

5. *Anamallais.*—This is another compact district to the north of the Kanan Devans, situated in the Coimbatore District of the Madras Presidency. The main crop is tea, though there is some coffee, cardamom and cinchona. The elevation is from 3,000 to 4,000 feet. Valparai is the district centre which is approached by a Ghat road from Pollachi.

6. *Nelliampathies.*—This is a small district to the north west of the Anamallais on the hills immediately overlooking the Palghat gap. The elevation is about 3,000 feet. The principal crops are coffee, cardamoms and tea.

7. *Cochin.*—The foot-hills of the western ghats to the west of the Anamallais contain a number of rubber estates.

8. *Nilgiris.*—This district consists of a plateau of an average elevation of 6,000 feet at the junction of the Eastern and the Western Ghats. The main crops are tea and coffee, much of the area under these being held by small holders.

9. *Malabar.*—This planting district is not co-extensive with the administrative district. It is restricted to the rubber estates and one or two small tea estates which lie in the Western foot hills of the Nilgiris. The chief supply centre is Calicut.

10. *Nilgiri-Wynaad.*—This district includes estates on the north-western slopes of the Nilgiris and in portions of the plateau immediately adjacent to these slopes. This area includes tea and coffee and is a very old planting district, with a general elevation of 3,000 to 4,000 feet. The estates in this area are interspersed with paddy lands and a fair amount of dry cultivation. The main local centre is Gadalur.

11. *Malabar-Wynaad.*—This district is a continuation of the Nilgiri-Wynaad district to the West and is situated in the Malabar district. It is lower in elevation with a heavier rainfall, but otherwise resembles the Nilgiri-Wynaad in general characteristics. Meppadi, Vayittiri and Manantoddy are the local centres, the main supply centre being Calicut. The main crop is tea, but recently robusta coffee has been successfully developed in this district.

12. *Coorg.*—The plantation areas of Coorg cover practically the whole of the Province, but can be divided into five main divisions,—Kutta, a comparatively small area lying in the extreme south of the province and bordering on the Manantoddy area of Malabar. This area has shown appreciable development of robusta coffee in recent years ; Polibetta-Sidapur, an area lying mainly to the east of the Mercara-Virajpet Road and south of Mercara ; the Naknaad, on the western ranges of Coorg to the west and south-west of Mercara ; Santikoppa, to the east of Mercara on both sides of the Mercara-Fraserpet-Mysore Road ; and Somwarpet in the northern part of Coorg. The most important areas are around Polibetta and Sidapur, and around Santikoppa and Somwarpett. Practically the whole plantation area is under coffee. Estates are interspersed with paddy lands and many estate owners are themselves paddy cultivators. The chief supply centres are Tellicherry and Mangalore on the West Coast and Mysore.

13. *Mysore.*—This large planting district lies entirely in the Kadur and Hassan districts of Mysore State, and includes nearly 100,000 acres of coffee—about half the total acreage in India. There are, in addition, about 4,000 acres of tea and little rubber. The general elevation is between 3,000 and 4,000 feet and the rainfall varies from 50 inches on the east to 300 inches on the western edge of the Ghats. Coffee estates occur from the borders of Coorg to Koppa and the Bababudin Hills. The main centres are Saklespur in the Hassan district and Chickmagalur in the Kadur district. As in Coorg, estates are interspersed with paddy lands some of which are owned by the estates themselves. A large part of the planted area is in small units, most of them privately owned, although a certain number of companies have been floated recently.

14. *Shevaroys.*—This district lies in the Shevaroy Hills of the Salem district, the main centre of which, Yercaud, is about 30 miles from Salem town. It consists entirely of small coffee estates almost all of which are privately owned.

15. *Palnis.*—There are a number of coffee estates in the Palni Hills. These hills are a continuation eastwards of the high ranges of Travancore. Most of the estates are small Indian-owned properties.

Structure of the Industry.

The plantations in South India are either Company-owned or private-owned. Under both categories there are Indian-owned and European-owned estates.

The following table compiled from the Planting Directory summarises the position in 1940 in regard to the nature of ownership of the plantations :—

TABLE 68.

Company owned and private estates in South India in 1940.

District	Tea				Coffee				Rubber			
	Company owned Estates (acres)	Percent of total	Private Estates (acres)	Percent of total	Company owned Estates (acres)	Percent of total	Private Estates (acres)	Percent of total	Company owned Estates (acres)	Percent of total	Private Estates (acres)	Percent of total
Coimbatore ..	24,871	100	251	0	2,194	78	631	22	..	..	..	..
Madura ..	940	100	..	..	..	..	10,713	100	..	..	..	..
Malabar ..	850	98	17	2	1,896	97	48	3	10,998	86	1,630	14
Malabar-Wynaad	11,849	97	442	3	1,876	31	2,753	69	425	73	160	27
Nilgiris ..	11,959	47	13,665	53	3,483	23	11,837	77	..	..	..	..
Nilgiri-Wynaad	12,130	86	1,865	14	3,784	80	942	20	..	..	..	..
Shevaroys ..	..	..	..	..	1,927	19	8,162	81	..	..	..	..
Coorg ..	362	100	..	..	7,690	15	42,876	85	2,757	93	200	7
Cochin ..	1,575	94	100	6	1,315	82	300	18	10,322	87	1,686	13
Mysore ..	3,640	83	749	17	7,547	8	87,779	92	743	100	..	..
Travancore ..	69,275	87	9,797	13	785	56	614	44	42,137	43	55,409	57
Total ..	137,451	83	27,481	17	31,712	16	168,066	84	67,392	52	61,369	48

It will be seen that 83 per cent. of the total area under tea is company owned while 84 per cent. of the total area under coffee is private owned ; for rubber the proportion is nearly half and half.

Out of a total of 134 planting companies in 1940, only 47 were Indian undertakings, controlling 16,196 acres of rubber, 7,632 of tea and 860 coffee. Of the European companies 42 were sterling companies and 45 rupee companies. After 1940 many European companies have changed hands to Indian ownership and have been floated as Indian companies. At the same time, many privately owned plantations have been newly floated as Companies with limited liability. These flotations are not always the result of the promoters' genuine interest in developing and taking full advantage of the commercial possibilities of plantations crops, but are often speculative ventures or at best new openings for investment. A few of the sterling companies have also been re-registered with rupee capital. No reliable data are available regarding the present position with regard to company-owned and private-owned estates, and the number of companies owned and managed by Indians and those managed by Europeans. Indications are that companies have made large inroads into the preserves of the private owner and that the number of Indian companies and the area under their control and management have substantially increased. For instance, the Investor's Encyclopedia of Southern India, 1944, mentions 106 rupee companies in South India in September 1944, as against 92 rupee companies given in the Planters' Directory for 1940. These 106 companies represent a total planted area of 31,613 acres of tea, 17,241 acres of coffee and 36,247 acres of rubber. The number of Indian companies as mentioned in the Investor's Encyclopedia has increased from 47 in 1940 to 89 in 1944 ; and the planted area controlled by them has increased to 27,573 acres of rubber, 20,197 acres of tea and 9,996 acres of coffee as against 16,196 acres of rubber, 7,632 of tea and 860 of coffee in 1940, a total increase of 134 per cent. The preparation of the produce for the market is simplest in the case of coffee and most complex in the case of tea, with rubber occupying an intermediate position. This is reflected in the place occupied by the limited liability company in each industry.

The main feature in the management of the Company-owned estates, Indian as well as European, is the Managing Agency System. The Directors of companies registered with sterling capital generally reside in the United Kingdom and they delegate the actual management of the estates to Agency Houses in India. Very often there is even a dual agency system, that is, there is one Agency House in the United Kingdom and another in India. The Agency Houses manage the estates, keep them supplied with tools, implements, manure, etc., and act as shipping and sales agents for the produce and as Secretaries, Attorneys, etc., on behalf of the Boards of Directors. For these services the Managing Agents are paid a commission on the net profits which will be anything from 5 to 12½ per cent. over and above a fixed amount every month for office and other expenses.

Most of the rupee companies, Indian-owned as well as European-owned, have also established relationship with Agency Houses. In the case of Indian-owned Companies such Agencies are frequently sister companies floated alongside of the planting companies for this purpose. In many cases the directors of the Agency Houses are the same as those of the planting companies or their friends or relations. The Agency Houses in such cases are but avenues for providing lucrative employment to the directors or their relations. A few private owners also, especially Europeans, have entrusted the management of their estates to Managing Agents.

The Managing Agents appoint the Superintendent, who is also called the Manager, for every estate under their management and leave him a free hand in all matters pertaining to the running of the estate—appointment and dismissal of staff, recruitment of labour, maintenance of the estate, supervision of work and processes of production, etc. In some of the newer companies the tendency has been for an increase in the interference and control exercised by the Managing Agents. In case there is a group of estates belonging to the same company, there is also a group Manager for general supervision over individual managers. The Managing Agents also appoint for every estate a visiting agent who visits the estate at least once a year and reports to the Managing Agents about the working and maintenance of the estate. The visiting agents are usually experienced planters.

The Superintendents of estates are generally paid a monthly salary of Rs. 800 to 1,000, and over and above this most of the companies pay them a commission of 5 per cent. of the net profits which in many cases amount to more than their salary. It is not infrequent for Superintendents to blame Managing Agents for errors of omission and commission but there is also another side to the picture. There are estate managers who are anxious to keep expenditure down in the interests of their commission on profits. They may, therefore, refrain from asking for funds for various works, including works to improve labour conditions. The visiting agents are generally paid a rupee per acre per year.

Some of the Indian Companies are managed directly by the Board of Directors who appoint one of the Directors as the Managing Director. During the period of the depression following 1929, many Indian companies came to an agreement with Agency Houses whereby these Houses were appointed Managing Agents or Shipping and Sales Agents for these companies in consideration of their advancing large amounts of capital to them to help them tide over the depression and maintain the estates in good condition.

Internal Establishment.

The details of internal establishment vary in tea, coffee and rubber estates. In tea estates, the Superintendents have European Assistants who are in charge of separate divisions in the same estate. During war time, however, most of these European Assistants have enlisted and the entire management is left in the hands of the Superintendents. Under the European Assistant in each division there is a head conductor and under him field conductors and field writers. The maistries are under the direct supervision of the field conductor and they, in their turn, supervise the work of the labourers. The work to be undertaken is determined by the Superintendent who also decides the size of the task in the case of task work.

The head conductor assisted by a field writer calls the morning muster at about 7-30 A.M. which every worker has to attend. The names of the workers present at the muster are entered by the field writer in a pocket book called the pocket checkroll. Thereafter the day's work is allotted, the necessary tools and implements are given and the workers sent out into the different fields to work under the supervision of the field conductor or the writer and the maistries. Some of the writers are in charge of the plucking field, some in charge of the pruning field, some in charge of weeding field, etc. When the day's work is over, the labourers have to report for the evening muster. Meanwhile, the field conductors check up and satisfy that the various tasks allotted are finished. The workers have to hand over the tools and implements given to them and get their names entered in the pocket checkroll kept by the field writers. The pluckers do not attend the evening muster. But they have to carry the plucked

leaf to the factory, or if the factory is very far from the plucking field, to the place of weighment, where the leaf plucked by each worker is weighed and the weights entered in the pocket checkroll kept by the plucking writer. The process of manufacture is carried on in the factory under the supervision of the tea maker and his assistants.

Coffee and rubber estates do not generally require such elaborate supervisory staff. The European Assistants are an exception rather than the rule. Coffee and rubber estates do not employ workers in such large numbers as tea. However, there is a head conductor in charge of each division and under him field conductors in charge of different fields. The maistries are under the supervision of the field conductors, and they, in their turn, supervise the work of the labourers. It should also be remembered that large estates under coffee and rubber are few and very often the smaller estates are managed by the conductor, who is generally called writer, with the help of the maistries for supervision. A muster is held in the morning and evening in the coffee estates but not in rubber.

In all estates there is an office and an office staff under a head clerk. The office maintains books, keeps checkrolls and accounts of advances and balances and looks after office routine and correspondence. In small estates the functions of the office staff and the field staff are combined in the same persons.

Processes of Production.

The processes of production in tea have already been described before. The South Indian tea plantations differ from those in North India mainly in one or two respects. Plucking goes on throughout the year as the tea estates are subject to two monsoons, North-East and South-West. The tea factories are, therefore, virtually perennial unlike in the North. Another difference is in the method of pruning. In South India pruning is done generally once in three years, while it is done annually in the North.

The types of work involved in the maintenance of coffee estates are weeding, digging of manure pits or trenches, pruning, handling and regulation of shade. There are two kinds of weeding, hand weeding and *mammatty* weeding or clean weeding. In clean weeding the weeds are dug out with a spade called *mammatty*. Manure is not spread in the field as in tea but dumped in pits or trenches dug between rows of plants. Pruning is the cutting away of old and rotting branches that would no longer blossom and the removal of all branches, other than the main branches, and shoots within a radius of 6 to 9 inches from the main stem from top to bottom. Handling is the tearing away of buds and new shoots from the main stem which is done by the hand by jerking off these shoots. Coffee requires a heavier shade than tea. Two other important works in coffee are spraying and the fighting of pests. The plants are sprayed every year with copper sulphate solution to prevent leaf diseases. Plants infected with borer pests have to be pulled out and burnt to prevent the spread of the disease. The losses amongst coffee bushes caused by the white stem borer amounts to several crores of rupees a year.

The harvesting of coffee is called picking. Unlike tea and rubber, coffee harvesting requires no particular skill but has to be pushed through in a limited time to avoid loss. The harvesting period in the other two crops is spread all over the year. In coffee, the harvesting starts from October and November and the last round is picked in February or March. The following

table[1] from the Report on the Marketing of Coffee, 1940, shows the normal harvesting periods in the important coffee producing areas.

TABLE 69

Harvesting Periods of Coffee

Producing area	Harvesting period	
	Beginning	End
Nilgiris	October/November	April/May
Shevaroys	October/November	April
Anamallais	October	March
Palni	August	February
Naduvattam and Nellian pathies	December	April/May
Coorg	November	March
Mysore	December	April
Travancore	November	March

The method of picking differs according to the grade of coffee the estate proposes to produce, namely, parchment (plantation) or cherry. Most of the robusta coffee grown in South India is made into cherry while a large part of arabica is made into parchment. To make parchment coffee the berries should be picked when fully ripe but before they get overripe. The number of pickings depends on the number of blossoms. In Mysore, Coorg and the Plains where the crop is practically from one blossom, about three rounds of picking with a last round of 'gleaning' (gleanings are the berries collected from the ground finally) complete the crop. On the higher elevations, however, where there are several blossoms, as many as twelve rounds are often necessary to gather the whole crop. When the crop starts ripening the pickers go a first round picking the ripe berries. This is called 'fly picking'. Later the pickers go a second and a third round picking only ripe berries. From the point of view of quantity and quality the middle pickings bring in the best part of the crop. In the last pick, both ripe and unripe berries are stripped off the branches. This is followed by 'gleaning'. As the 'strippings' and 'gleanings' contain beans of different stages of maturity, they are usually converted into "cherry" along with a portion of the first picking. For robusta coffee, generally there is only one picking. When the berries are ripe which is indicated by the crop turning red all the berries are gathered in a single round of picking.

In preparing parchment coffee the 'wet' (washing) method is used. The ripe berries are pulped in the pulping machine so as to remove the outer pulp. The pulped coffee is gathered into a heap and covered with gunny bags and left for 12 to 36 hours for fermentation so that the saccharine matter clinging to the parchment may be softened. It is then washed and dried in the drying yard. The 'dry' (natural) method is used in preparing cherry coffee. Under this method, the coverings on the bean are removed by drying and pounding.

The final processes are done in curing works which are generally situated in the plains far removed from the plantations. The parchment or cherry is sent to these works for curing. The curing works further dry the coffee, whether parchment or cherry, mill it to remove the parchment, sift, garble and grade it and send it on to the market packed in gunny bags. At present, however, owing to the Indian Coffee Control Act they have to send it to the 'pool' for disposal.

[1]Report p. 143.

The chief works in rubber estates are weeding, manuring and spraying to prevent fungus disease. In most rubber estates a mulch or cover crop is grown in between the trees to prevent soil erosion and growth of weeds. The harvesting process is called tapping. There are different systems of tapping in vogue. The usual system is the half-spiral alternate day system under which one incision is made only on alternate days. Another system is half-spiral daily system which is mainly followed by small estates. Recently the double-three system is recommended for increased production of rubber ; the estate is divided into three divisions, each division being tapped once in three days on both sides. The trees are tapped by a spiral cut extending to half the girth of the tree at a height of 3½ feet from the ground. The cut is made by a tapping-knife specially made for the purpose. The spiral cut is renewed every day, alternate day or third day according to the system followed by scraping a thin slice of the bark. The scraping is continued up to the ground level and then it is started on the other side. The latex runs along the spiral cut and oozes into a cocoanut shell placed for collecting it. When the latex stops flowing, the tappers go round and collect it in buckets. The scrap rubber forming on the spiral cut and the shells is also collected.

The latex is brought to the factory or the coagulating shed and after it is properly strained through a gauze it is coagulated by adding acetic or formic acid. It generally takes 3 to 4 hours for coagulation. The coagulated rubber is then milled into thin rubber sheets by rollers and the sheets are dried in the smoke house. Some of the larger estates produce crepe rubber by a machine process.

EMPLOYMENT.

Number of Persons Employed.

The normal requirements of labour for plantations are :

1½	labourer for	1 acre of	tea.
¾	,,	1 ,,	coffee.
⅔	,,	1 ,,	rubber.

At present, however, on account of scarcity of labour, the estates are not working with a full complement of labourers.

The extent of employment in the sampled units is given in the form of three tables below separately for tea, coffee and rubber.

TABLE 70

Employment in sampled tea estate, 1944.

District	Number of estates	Total acres	Number of workers			
			Men	Women	Children	Total
South Travancore	6	2,224	952	680	367	1,999
Central ,, ...	9	4,446	1,684	1,527	514	3,725
Manuar	2	2,219	860	936	408	2,204
Anamallais	6	4,554	2,181	2,226	325	4,732
Nilgiris	8	3,231	856	1,225	282	2,363
Wynaad	9	7,066	2,716	3,553	556	6,825
Total	40	23,740	9,249	10,147	2,452	21,848

TABLE 71

Employment in sampled coffee estates, 1944.

District	Number of estates	Total acres	Number of workers			
			Men	Women	Children	Total
Anamallais and Madura ..	5	2,306	372	325	117	975
Nilgiris and Wynaad	8	2,962	748	469	183	1,510
Shevaroys	7	1,462	280	331	109	720
Coorg	18	6,255	2,003	1,320	405	3,728
Mysore	23	9,175	2,294	2,226	453	4,373
Total ..	61	22,160	5,697	4,671	1,267	11,906*

*In one estate only the total figure for employment was available, but not separately for men, women, and children. The total, therefore, will not be the total of men, women and children.

TABLE 72

Employment in sampled rubber estates, 1944.

Number of estates	Total acres	Number of workers			
		Men	Women	Children	Total
30	19,464	4,757	1,580	244	6,581

If the total number of workers is divided by the number of acres to which it relates in each case, we arrive at an average of

0.920303 workers per acre for tea.
0.537274 workers per acre for coffee.
0.338111 workers per acre for rubber.

Multiplying these figures by the total area under tea, coffee and rubber estates as given earlier, the extent of employment in tea, coffee and rubber estates will be as shown below :—

Tea	150,578	workers.
Coffee	110,760	,,
Rubber	50,400	,,
Total	311,738	,,

The following three tables compiled from the statistics supplied by the Director General of Commercial Intelligence and Statistics show the employment in tea, coffee and rubber estates :—

TABLE 73

Average number of persons daily employed in South Indian Tea Plantations, 1942.

District or State	Number of persons employed (daily average)		
	Garden Labour (permanent)	Outside Labour (permanent)	Outside Labour (temporary)
Madras—			
Nilgiris	25,158	2,418	2,731
Malabar*	10,132	363	669
Coimbatore ..	24,174	..	1,174
Tinnevelly	802	20	104
Madura	527	100	1
Total ..	60,793	2,901	4,679
Coorg	230	..	..
Total, British India ..	61,023	2,901	4,679
States—			
Mysore	2,412	629	595
Travancore ..	76,114	1,799	2,028
Cochin	2,200	85	50
Total, States ..	80,726	2,513	2,673
GRAND TOTAL, SOUTH INDIA	141,749 +	5,414 = 1,54,515 +	7,352

*Tea areas in this district come under the planting district of Wynaad.

TABLE 74

Average number of persons daily employed in coffee estates, 1942-43.

District	Persons employed (daily average)		
	Garden Labour (permanent)	Outside Labour (permanent)	Outside Labour (temporary)
Madras—			
Vizagapatam	3	..	816
Madura	4,160	2,260	49,398*
Tinnevelly	3	19	45
Coimbatore	1,860	..	398
Nilgiris	8,685	2,015	3,132
Salem	2,854	1,125	772
South Kanara	10	..	..
Malabar	3,135	2,980	2,029
Total, Madras ..	20,710	8,399	59,590
Coorg	5,703	2,824	5,173
Total, British India ..	26,413	11,223	61,763
States—			
Mysore	197	18	..
Hassan	4,430	3,815	9,640
Kadur	14,901	8,566	19,008
Shimoga	20	20	5
Total, Mysore ..	19,548	12,419	28,653
Travancore	454	320	107
Cochin	1,472	62	115
Total, States ..	21,474	12,801	28,775
GRAND TOTAL, SOUTH INDIA	47,887 +	24,024 = 162,449* +	90,53

*The employment figure of Outside labour (temporary) for Madura district is obviously wrong. This figure for the previous year was only 2,283, which appears to be correct in view of the fact that there are only 8,768 acres under coffee in the district. If this correction is applied, the total employment figure would be 1,15,334.

TABLE 75

Average number of persons daily employed in rubber estates, 1942.

District	Number of persons employed (daily average)		
	Garden Labour (permanent)	Outside Labour (permanent)	Outside Labour (temporary)
Madras—			
Salem	14	..	..
Malabar	1,919	1,617	2,077
Nilgiris	240	84	2
Madura	50	70	..
Coimbatore	221	..	25
Total, Madras	2,444	1,771	2,104
Coorg	930	..	540
Total, British India ..	3,347	1,771	2,644
States—			
Mysore	4	2	176
Travancore	18,109	6,076	7,168
Cochin	3,343	1,505	2,742
Total, States	21,456	7,583	10,086
GRAND TOTAL, SOUTH INDIA	24,803	+9,354 =46,897	+12,730

The above figures more or less tally with those worked out above from the employment in sampled estates.

Local and Casual Labour.

Tea estates do not generally employ much local and casual labour because tea areas are mostly removed from villages. The coffee estates, especially during the harvesting season, employ a large number of local labour. The rubber estates in Travancore and Cochin depend on local labour mainly for general work such as weeding, maintaining roads, etc. In the Mooply valley in Cochin State especially, local labour is employed in hundreds in the rubber estates. Though information under this head was called for in the Supplementary Questionnaire, only a few estates furnished figures regarding the employment of local and casual labour.

TABLE 76

Employment of local and casual labour.

District	Area (acres)	Number of casual workers.
Nilgiris	1,487	145
Travancore	6,717	880
Cochin	1,531	327
Mysore	327	55
Total ..	10,062	1,407

Employment, Pre-war and War-time.

With the abnormal conditions brought about by the war, the extent of employment in the plantations has decreased. Comparative figures of employment in the years 1939 and 1944 are given in the four tables below. The first three give the variations separately in tea, coffee and rubber estates based on the information available in some of the sampled units and the last gives the variations for those estates which furnished the necessary information.

TABLE 77.

Employment in certain tea estates in 1939 *and* 1944

District	Area to which employment relates (acres)	Number of workers 1939	Number of workers 1944	Percentage increase or decrease
South Travancore	589	615	410	—33
Central Travancore	3,093	3,095	2,280	—26
Munnar	946	1,200	885	—26
Anamallais	2,880	2,379	2,192	—8
Nilgiris	2,323	1,802	1,559	—13
Wynaad	5,658	5,860	5,196	—11
Total ..	15,483	14,951	12,522	—16

TABLE 78

Employment in certain coffee estates in 1939 *and* 1944

District	Area to which employment refers (acres)	Number of workers 1939	Number of workers 1949	Percentage increase or decrease
Anamallais and Madura	2,306	719	975	+36
Nilgiris and Wynaad	1,463	812	806	—1
Shevaroys	780	468	331	—29
Coorg	2,792	2,289	1,998	—13
Mysore	4,708	2,818	2,340	—17
Total ..	12,049	7,106	6,450	—9·2

TABLE 79

Employment in certain rubber estates in 1939 *and* 1944

	Area to which employment relates (acres)	Number of persons 1939	Number of persons 1944	Percentage increase or decrease
	12,046	3,810	3,457	—9

TABLE 80.

Employment in certain plantations in 1939 *and* 1944.

District	Area to which emloyment relates (acres)	Number of workers 1939	Number of workers 1944	Percentage increase or decrease
South Travancore	26,837	11,488	12,099	+5
Central Travancore	18,875	16,085	15,504	—4
Mundakayam	4,301	2,636	2,606	—1
Munnar	38,884	40,685	31,224	—23
Anamallais	24,577	19,211	19,197	*Nil*
Nilgiris	16,844	15,181	14,839	—2
Wynaad	20,982	19,540	17,273	—12
Cochin and Malabar	12,768	2,870	3,194	+11
Coorg	8,783	6,248	5,390	—14
Shevaroys	3,122	2,413	2,226	—8
Mysore	6,020	4,916	4,424	—10
Total ..	181,993	141,273	127,973	—9

The above tables show that employment in rubber and coffee estates has not fallen as much as in tea estates. In some rubber estates employment has risen as can be seen from the increase in employment in South Travancore and Cochin and Malabar which are predominantly rubber-producing areas. In Mundakayam, which is the most important rubber area, employment has fallen only by 1 per cent. Four reasons can be given why employment in rubber estates has increased or at least kept steady compared to 1939.

(a) The restriction on the extension of planted area in rubber was imposed only in 1935. Areas planted prior to 1935 came into bearing from 1939 calling for employment of more workers.

(b) The cyclone of 1941 destroyed a considerable area of rubber in Cochin which area is now being replanted. The replanting and maintenance of unbearing rubber trees require more employment than yielding estates.

(c) The slaughter tapping of rubber on the recommendation of the United Kingdom Rubber Mission involves employment of more workers.

(d) Before 1943 the tappers in rubber estates were required to do weeding, digging, etc., in the field after their tapping work was finished. This is no longer the case in many of the rubber estates now.

Even in tea estates the fall in employment has not affected all areas uniformly. For example, the Anamallais registers no fall in employment while, on the other hand, the fall is striking in the adjacent planting district of Munnar. In coffee also it may be taken that employment has fallen roughly by 10 per cent. since 1939.

Comparative figures of employment in plantations according to figures of the Director-General of Commercial Intelligence and Statistics are given in the following table :—

TABLE 81

Comparative employment, 1939 and 1942

Plantation	1939	1942
Tea	153,241	154,515
Coffee	104,251	162,449*
Rubber	32,947	46,887
Total ..	290,439	363,851

*Figures relate to 1942-43. As stated before, there is some mistake in these figures. The figure for 1941-42 was only 106,038 and it is very unlikely there could have been such an enormous increase in one year. The estimate based on the sampled units gives only 110,760 as the figure of employment in 1944.

It is seen from the figures of the Director-General of Commercial Intelligence and Statistics that total employment has risen since 1939. This is due to employment in estates newly coming into bearing, while the fall shown in tables 77-80 relate to the same estates and the same area.

Under-employment.

There is generally no problem of unemployment in plantations. Under-employment, is, however, a serious problem, though not at present. That the problem did exist in pre-war time cannot be denied. In their replies to the Questionnaire many managers have admitted that occasionally they were able to provide work to the employees for only five and sometimes even four days in a week. In this connection the reply of the United Planters' Association may be quoted, " The major problem of plantation management is the arrangement of work so as to maintain a labour force reasonably adequate for the busy seasons and at the same time to avoid any unemployment in slacker seasons. The annual visit to the village is usually arranged to coincide with slack seasons, but in spite of this there are times when it is not easy to ensure full employment. This is perhaps most strikingly illustrated in coffee, where

estates which are in the fortunate position of being able to secure ample supplies of local labour when required can manage with very small permanent labour forces, compared with the requirements of estates not favourably situated for local labour supplies ".

It is to be noted that in rubber estates the extent of under-employment is considerable, though it is through no fault of the employers or of the employed. During the monsoon months there is no tapping on rainy days and the workers lose up to 20 days' work in a month, the average being 10 days. It is unfair to the employers to ask them to pay wages where no work is done and no crop is brought in. But in view of the rather high profits and low wages, it is but fair that the employers should give a small allowance for the days on which work is held up due to the inclemency of the weather. This forced unemployment is certainly a risk that brings about indebtedness, malnutrition and sometimes acute want, and since neither party is to be blamed, the risk should be covered, partly at least, by the party which can afford to do so.

There is yet another aspect of this question which will be discussed more fully under wages, *viz.*, non-payment of wages to the tapper after he has finished his work but is prevented by rains from bringing in the yield. Under such circumstances, the worker should be paid fully or at least the basic wage as a few estates are actually doing.

Employment of Women and Children.

Employment of women and children in large numbers is a striking feature of plantations. In fact, the basis of recruitment to the plantations is the family and recruitment of individuals, though countenanced, is not encouraged. All the members of the family, men, women and children, are provided with work. This is especially the case in tea and coffee estates. In rubber estates, however, the majority of workers come as single recruits, even though there is always a certain amount of work available to the womenfolk. In tea and coffee estates, women and children are mostly employed in harvesting the crop. Children are generally employed in the plantations at the age of 10. It is stated by some managers that child labour is not of economic value to them but that they have to engage it to satisfy the parents. They added that they would welcome legislation about employment of children. The rules (*vide* Appendix XII) framed in 1937 by the Cochin Government for conserving the health and protecting the interests of plantation labour in the State lay down that no child under the age of 10 shall be employed in any estate and that no child or young person under 16 shall be employed as a resident labourer on an estate without being certified fit by a Medical Officer approved by the Director of Public Health.

The proportion of men, women and children employed in the sampled estates is given in the table below, separately for tea, coffee and rubber.

TABLE 82

Employment of men, women and children in plantations

Plantation	Proportion		
	Men	Women	Children
Tea	42%	47%	11%
Coffee	49%	40%	11%
Rubber	72%	24%	4%
Total ..	49%	41%	10%

The employment of men, women and children and the number of male, female and child dependents in each district as given in the replies to the Questionnaire are shown in the table below :

TABLE 83

Workers and dependents classified according to men, women and children.

District	Area to which employment relates (acres)	Workers						Dependents					
		Men		Women		Children		Men		Women		Children	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
South Travancore	12,026	3,063	49	2,306	37	875	14	72	3	218	9	2,066	88
Mundakayam	4,135	1,510	53	1,091	38	278	9	70	4	185	11	1,359	85
Central Travancore	18,766	8,537	43	8,050	41	3,119	16	310	5	498	8	5,282	87
Munnar	37,950	15,039	41	15,334	42	5,972	17	196	2	582	6	9,535	92
Anamallais	23,480	8,641	45	8,902	46	1,769	9	181	3	399	6	5,838	91
Nilgiris	8,285	3,312	43	3,377	44	950	13	134	5	221	9	2,129	86
Wynaad	13,761	4,567	43	4,979	47	1,094	10	359	9	569	14	3,120	77
Malabar	5,993	873	75	251	21	47	4	13	9	36	24	100	67
Madura	768	237	41	271	47	71	12	..	..	..	..	321	100
Shevaroys	2,601	348	39	399	45	139	16	3	1	7	3	192	96
Coorg	5,927	2,672	56	1,562	33	532	11	65	5	201	16	1,029	79
Mysore	4,091	847	44	840	44	224	12	27	6	73	15	373	79
Total ..	137,783	49,646	44·3	47,362	42·3	15,052	13·4	1,430	4	2,987	8	31,344	

Size of the Family.

Employment of women and children in plantations and recruitment of labour by families have, by long usage, led to the consideration of advances, earnings and even savings in terms of family. It is, therefore, necessary to look into the composition of the family in order to visualise the problems of plantation labour in their proper perspective. Generally a family consists of a man and a wife with two to four children. One or more of the children may go for work and help contribute slightly towards the support of the family.

The following is the frequency distribution of families according to size in those estates which have replied to the Questionnaire :

TABLE 84

Frequency distribution of families according to size, 1944

Size of the family	Number of working members			Number of dependents			Total	%
	Men	Women	Children	Men	Women	Children		
1 member	8,941	3,841	594	83	90	266	13,815	9·6
2 members	10,149	9,923	1,468	144	398	2,810	24,892	17·3
3 members	10,033	10,955	3,380	265	610	6,966	32,209	22·4
4 members	3,877	4,142	1,129	180	351	4,187	13,866	9·7
5 members*	7,422	8,221	8,455	250	567	7,220	27,135	19·0
6 or more members ..	7,537	8,770	4,565	470	899	9,246	31,487	22·0
Total	47,959	45,852	14,591	1,392	2,915	30,695	143,404	100·0

*Includes in some cases families of 4 members also.

Length of Service of Workers.

In the plantation industry it is very difficult to assess the length of service of workers. For one thing, the large majority of estates do not keep any records of the length of service of the workers. Moreover, the workers do not always work in the same estate year after year, nor do they get any real encouragement to do so. One year they work in one estate and the next year they may go to another. Inspite of these disadvantages, however, the number of workers who have put in long years of service in the same estate is appreciable. This is borne out from the following table compiled from information furnished by 10 tea estates and 9 rubber estates, mostly from the planting districts of South Travancore, Central Travancore and the Nilgiris in the case of tea and Mundakayam and Malabar in the case of rubber.

TABLE 85

Age composition of workers.

Length of service	Tea estates		Rubber estates	
	Number of workers	% of total	Number of workers.	% of total
Between 0 and 1 year	1,116	36	1,176	52
,, 1 and 5 years	780	25	401	18
,, 5 and 10 years	718	23	190	8
Over 10 years	499	16	498	22
Total ..	3,113	100	2,265	100

Age Composition of Workers.

Hardly any worker in the plantations knows his or her correct age. This one fact speaks volumes regarding their standard of literacy and their general outlook on life. Interesting situations have often arisen when interviewing the workers, *e.g.*, two workers gave nearly the same age and they proved to be father and son.

The following table is an analysis of the age composition of plantation workers furnished by individual estates in their reply to the Questionnaire.

TABLE 86

Age composition of workers, district-wise.

District	Below 15 years		Between 15 and 55 years		Above 55 years		Total Number of workers
	Number of workers	%	Number of workers.	%	Number of workers	%	
South Travancore ..	829	12·6	5,621	85·3	137	2·1	6,587
Central Travancore ..	1,220	15·3	6,542	81·7	238	3·0	8,000
Anamallais	1,246	10·0	10,992	88·4	202	1·6	12,440
Nilgiris	474	16·2	2,388	81·4	71	2·4	2,933
Wynaad	1,326	9·9	11,707	88·0	278	2·1	13,311
Malabar	50	3·9	1,185	93·2	37	2·9	1,272
Shevaroys	191	14·8	1,065	82·4	36	2·8	1,292
Coorg	574	11·9	3,943	82·2	281	5·9	4,798
Mysore	224	12·8	1,441	82·8	76	4·4	1,741
Total ..	6,134	11·7	44,884	85·7	1,356	2·6	52,374

In Munnar, the Kanan Devan Hill Produce Company which employs nearly 40,000 workers supplied only the percentage of workers over 55 which was 1.6.

In many estates children of very tender age are employed. Children below 12 form the large majority and children from 8 to 10 are very common, although, when asked, their parents give their ages as 10 to 12.

Absenteeism.

The extent of absenteeism among plantation workers is very striking. The average outturn for work is seldom more than 80 per cent. of the total labour force. The causes of absenteeism are generally sickness and fatigue and the consequent desire for rest. Sheer idleness on the part of the workers is also not a negligible factor. The workers being illiterate and ignorant seldom look forward and plan for the future. In fact, many employers attribute the prevalence of absenteeism among the workers to their outlook on life and stress that absenteeism has increased in recent years side by side with the increase in their wages. The workers, on the other hand, give out sickness and want of rest as the main causes of absenteeism. This appears to be true, especially as the workers come from distant villages and life in the plantations involves for them change in climate, diet, etc., which acts as an unhealthy influence. Even the increase in absenteeism in recent years stressed by the employers may be attributed to the forced change in the workers' diet caused by the acute shortage of rice which is their staple food.

The following table showing the total number of workers on the rolls and the average number daily employed, month by month, in 1943-1944 in 49 estates, mostly tea, representing a total area of 73,065 acres, illustrates the extent of absenteeism in plantations.

TABLE 87

Absenteeism in Plantations, 1943-44.

Month	Number of workers on rolls	Average number daily employed.	Percentage of outturn	Percentage of absenteeism
January	73,248	61,191	83·6	16·4
February	72,236	59,780	84·2	15·8
March	77,541	63,939	82·5	17·5
April	80,768	67,423	83·4	16·6
May	81,829	67,922	83·0	17·0
June	71,102	59,025	83·0	17·0
July	68,982	54,228	78·6	21·4
August	71,790	58,249	81·1	18·9
September	73,809	61,007	82·6	17·4
October	73,691	59,667	80·9	19·1
November	72,813	60,825	83·5	16·5
December	80,702	67,899	84·1	15·9
Average	74,876	61,763	82·5	17·5

Recently, however, planters have devised various means to encourage workers to turn up regularly for work, such as granting a good attendance bonus of 8 annas per week for 6 days attendance or a 12½ per cent. bonus for an attendance of 220 days in a year. Indirect punitive measures are also resorted to to prevent absenteeism such as holding back a part of the rice ration, benefits of the cumbly bonus and the way expenses, etc. That inspite of these measures absenteeism has not appreciably decreased shows that the main cause of absenteeism is to be looked for elsewhere than in the sheer idleness of the workers.

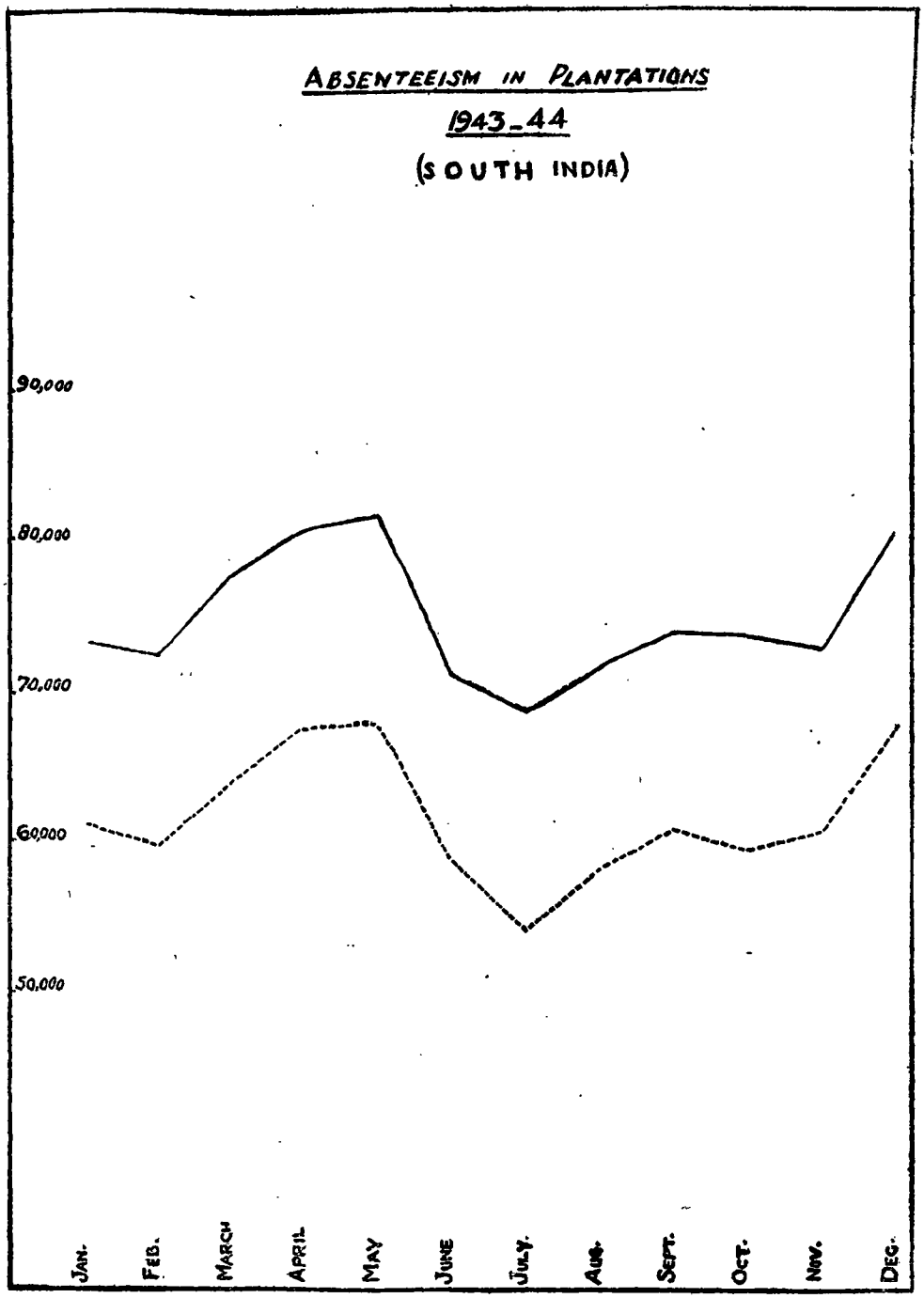
Labour Turnover.

Labour turnover in plantations is not a serious evil. The number of workers that leave in the course of the settlement period is small. One of the reasons may be the system of annual settlement. Other and perhaps more important reasons may be the system of advance under which a worker is not free to leave one estate and seek employment in another unless he has cleared all his debts and the understanding among the planters generally not to employ workers coming from another estate.

Stability of the Labour Force.

The question of the stability of the labour force, as commonly understood in industrial undertakings, does not arise in the case of plantations. Work in plantations does not generally involve any appreciable degree of skill. Most of the operations in plantations are of a purely agricultural nature and the labour force, being recruited from the general class of agricultural labour, already knows or can easily pick up the work in the plantations. Unlike industrial concerns that call for a certain degree of skill and specialisation among their workers, the plantations do not have the need to build up a settled labour force.

On the other hand, it appears that labourers themselves are not keen to stick to any particular estate but change from one estate to another very frequently. The main reason for this is that the labourers seek new estates where they hope that conditions of employment are better. The cause of the migratory character of plantation labour can be best expressed in the following words of the celebrated novelist, Thomas Hardy : " The Egypt of one family was the Land of Promise to the family who saw it from a distance,


ABSENTEEISM IN PLANTATIONS
1943-44
(SOUTH INDIA)
90,000
80,000
70,000
60,000
50,000
JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY.
AUG.
SEPT.
OCT.
NOV.
DEC.
Number of workers on the rolls.
Average number daily employed.

till by residence there it become in turn their Egypt also ; and so they changed and changed."

However, apart from individual estates, plantation labour generally may be said to be more or less a stable labour force in as much as most of the labourers are workers of long standing in estate work, even though their length of service in individual estates may be small.

When a labourer accepts employment in an estate it is generally understood that he agrees to work there for ten months. After ten months the labourer goes back to his village and may or may not return to the same estate. Actually, however, a considerable number do return to the same estate. The United Planters' Association submitted to the Whitley Commission that the percentage of workers who thus return to the same estate is from 60 to 90.[1] That percentage holds good even today. The amount of permanently resident labour on estates in South India, however, is very small. It will be less than 10 per cent.

Employment in Factories.

The processes of final preparation of tea and rubber are carried on in factories generally built on the estates. The following table illustrates the extent of employment of men, women and children in tea and rubber factories.

TABLE 88.

Extent of employment in factories, 1944

Factory	Area covered (acres)	Number of factories.	Employment			
			Men	Women	Children	Total*
Tea	12,719	207	376	214	12	794
Rubber	19,189	18	347	49	*Nil*	441

*The number of men, women and children separately was not available in some factories.

The proportion of men and women employed in tea factories to the area planted under tea given in the above table may be taken to apply to the tea plantations generally. The case is different in rubber factories which are found only in large estates. In smaller estates, there are only coagulating sheds and smoke houses and very often the work in them is done by the tappers themselves. In tea factories a good percentage of the workers employed are women while in rubber factories the percentage of women employed is negligible. In both tea and rubber factories children are very rarely employed. The counterpart of the factory in coffee estates is the pulp house and the few workers that the employed in it are regular estate workers. Moreover, the pulp houses work for only about two months in the year. The curing of coffee is done in curing works far removed from the plantations and these works employ a large number of men and women. Details of employment, etc., in coffee curing works are given in Appendix XIII.

Most of the large tea and rubber factories come under the Factories Act as seasonal factories. Section 4 of the Factories Act includes factories engaged in the manufacture of coffee, rubber and tea as seasonal factories, but with the proviso that 'the Provincial Government may, by notification in the Official Gazette, declare any such factory in which manufacturing processes are ordinarily carried on for more than one hundred and eighty working

[1]Report of the Royal Commission on Labour in India, p. 355.

days in the year, not to be a seasonal factory for the purposes of this Act.' It is not understood why the Madras Government has not so far declared the tea and rubber factories in that province as perennial factories though all rubber and tea factories, without exception, carry on manufacturing processes for more than 180 days in the year, and though the large majority of them carry on manufacturing process for more than 300 days in the year. It was also remarked by the Whitley Commission that the South Indian Tea Factories work nearly all the year round.[1] Declaring the tea and rubber factories which work for more than 180 days as perennial factories will help the workers in various ways, *e.g.*, the weekly hours of work will be reduced from 60 to 54 and the Maternity Benefit Act will apply.

RECRUITMENT.

Labour for the plantations of South India is recruited mainly from areas situated one to five days' journey from the estates. The labour is all of agricultural origin and is mostly illiterate. On all types of plantations there is regular work for men, women and children; consequently the recruitment of whole families is considered desirable, both by the labour and the employer. On tea and coffee estates recruitment is by families but in the case of rubber recruitment is mainly of men who do not, as a rule, bring their families with them. Such work as is usually done by women in rubber estates is largely done by local labour.

Failure of crops, bad monsoon and want of sufficient work in home village are the main causes for the labourers to leave the village and accept employment in plantations. The lure of the pre-employment advances is a further incentive. The following extract from the proceedings of the General meeting of the Labour Department of the United Planters' Association held on 30th March 1943 shows that the planters bank on the indigence of the workers for recruitment.

"From reports received from several agents in the Palamcottah Division, 1943-44 might prove a difficult year for recruiting labour for the following reasons :—

(1) Rains have been good and all tanks are full.

(2) Crops are reported good and there is plenty of employment.

(3) The food position is easier and one Agent reports that some coolies have complained regarding change of food on estates.

In Mangalore and South Kanara Districts Agents also report (1) work plentiful (2) increased wages."[2]

Recruiting Agents.

1. The Kangany.—The principal method of recruitment of labour for plantations in South India is through kanganies working as employers' agents. The kanganies are generally drawn from the ranks of the estate labourers themselves and their relation with the members of their gang are often characterised by mutual trust and goodwill. They do not, however, work as labourers. The estates get in touch with kanganies in various ways. A labourer working in the estate might offer to bring up a gang in the following season. In some cases connections may be arranged through the Labour Department of the United Planters' Association or by members of the estate staff deputed for the purpose. Sometimes the kanganies approach the estates directly with offers to recruit labour. When a connection has been established, the estate either advances the kangany a sum per head of the labourers promised for which he gives a promissory note, or arranges with the Agent of

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[1]Report of the Royal Commission on Labour in India, p.76.

[2]United Planters' Association of Southern India Year Book, 1943, p. 138.

Labour Department of the United Planters' Association of Southern India in the village to pay the advance individually to each labourer in the presence of the kangany, for which the labourer gives a promissory note. In the case of re-engagement of labourers the advance is generally paid direct to the workers by the Superintendent of the estate. Most of the estates have a written agreement executed by the kangany acknowledging the receipt of the amount of the advance and agreeing to keep the stipulated number of workers in the estate and also to supervise to work of his gang, in return for which the estate Superintendent agrees to pay him a commission of 10 to 15 per cent. on the earnings of the workers in his gang.

When the labourers reach the estate, they are medically examined and if found fit are taken on the checkroll and the amount of the acknowledged advance recorded. The advances made to the kangany are debited to his account and set off against his commission. In some cases the advances are recovered direct from the labourer. Usually a gang consists of a minimum of 10 and a maximum of 80 workers, the average being about 30. The kangany is held responsible for the advances paid to the workers in his gang. Generally if a worker bolts, his credit or debit is transferred to the kangany's account. If, however, a worker dies the estate suffers the loss on account of his advance.

2. Professional labour suppliers.—The professional labour supplier as a recruiting agent is employed by the coffee estates of Mysore, Coorg and the Wynaad and by many of the rubber estates in South Travancore, North Travancore and Malabar. These suppliers are often rich and influential landlords who recruit persons from their villages and often even from outside their villages and send them to the estates. They do not supervise their work. Sometimes they depute assistants to recruit labour and it will be the duty of these 'sub-kanganies' or 'kole-maistries', as they are called, to live on the estate with the gang and supervise the work just as the kanganies described in the previous paragraph do. Even advanced planting districts like the Kanan Devans and the Anamallais have not wholly weeded out the professional recruiter who parades as the 'head-maistry'. The Labour Advisory Committee of the United Planters' Association considers such recruiters, generally speaking, a menace both to the employer and the employed.

The grant of advances under this system is the same as described in the previous paragraph but the recovery of advances is effected directly by the supplier and not through the estates in many cases, especially in coffee and rubber estates. In fact, in most of these estates, the payment of wages is also made through the suppliers at the time of settlement.

3. Subordinate estate staff.—Recruitment through subordinate staff is limited only to a portion of labour employed on coffee estates in Mysore and parts of Coorg. This labour is drawn from South Kanara. In such cases the estate staff comes from the same district as the workers. The Labour Advisory Committee has deprecated the employment of members of the Indian subordinate staff as recruiters.

Estate Gangs.

A certain number of labourers come to the estates without the intervention of a kangany. In some cases they receive the commission which would otherwise be paid to the kangany. The extent of this type of recruitment varies widely in different districts and on different estates. The reply of the United Planters' Association of Southern India mentions that many estates have attempted to encourage this type of recruitment but with variable degree of success. The lure of the additional cash payment, it says, is not strong

enough to attract the majority of estate labour. Moreover, it is possible that debts owed to kanganies may effectively prevent some labourers from joining estate gangs. One of the major difficulties of the estate gang is that its members have no source of loans and advances. In spite of these disadvantages, it is likely that, if any real encouragement is given, the workers would flock to the estate gang. At present only a few estates pay the estate gang the commission which otherwise they pay to the kangany; and in the estates that pay the commission the estate gang is very popular. In the tea districts of South and Central Travancore, the estate gang is very popular particularly among the more advanced type of workers. Especially in Central Travancore the workers like to see the kangany system abolished. If the estates could see their way to give petty advances to the workers for which they now depend on the kanganies and full rate of commission, there is no reason why the estate gang should not supplant the kangany system. The work of labourers in the estate gang is generally supervised by a monthly paid kangany.

The U. P. A. S. I., Labour Department.

The Labour Department of the United Planters' Association was established by the Association in 1914 and is supported by subscriptions from those planters who derive its assistance. The object in starting the department was to regulate recruiting, settle inter-estate disputes, put a stop to crimping and to carry on propaganda work for new labour[1]. In 1944, the Labour Department had a membership of 114,006 acres of tea, 23,875 acres of coffee and 37,979 acres of rubber and minor products. The subscription per acre is Re. 0-13-6 for tea, Re. 0-9-0 for coffee, and Re. 0-2-0 for rubber and minor products.

The Labour Department is not directly concerned with the recruitment of labour. It registers labour suppliers, assists them in sending up labour and helps in the recovery of debts. It has about 40 agents in all the recruiting centres who contact the workers and the kanganies, check their antecedents and reject the undesirables. They also distribute the pre-employment advances if needed. In case any worker bolts from an estate, the Labour Department helps trace him and send him back to the estate or recover the advance outstanding against him.

The Kangany or Maistry System.

The advantages of the kangany system are neatly summarised in the following extract from the United Planters' Association of Southern India Standards (given in Appendix XIV) in respect to the welfare of labour in South India :—

" A number of families hailing from one village or neighbouring villages need an experienced plantation employee to guide them in their choice of estates and through all their difficulties during the journey from the village to the estate. Upon arrival on the estate, they need a man who is prepared to assist them in their petty difficulties; be they financial or matters of food, clothing and accommodation. They need a man to guide them in their work and a man to represent their requests and grievances to the proper quarters and a man to help them in sickness or distress. It is these very needs and requirements which are the foundation of the kangany recruiting system and your Committee are convinced that the system is good and should not be changed. The kangany, at his best, is a first class welfare worker, for he realises that his whole career depends on his ability to maintain a good reputation with the families he recruits. That kanganies occasionally abuse their position and petty power is not denied by your Committee, but they feel that the reduction of advances and gradual education of the labourer has gone far to curtail his opportunities for malpractices.

[1] Planting Directory, 1940, p. 333.

In trying to defend the kangany system, the Labour Advisory Committee has obviously overlooked its weak points. If the above needs and requirements are the foundation of the kangany recruiting system, then surely the foundation is insecure, for it is based on the wish of the employers to escape responsibility to provide for them. In a progressive industrial system, much more than ' these needs and requirements ' is provided by the employer. Further, the feeling of complacency that reduction of advances and gradual education of the labourer has gone far to curtail the opportunities of the kanganies for malpractices is an illusion. With the reduction of advances by the estate, personal advances by the kanganies have increased, and as regards education the plantation worker is little better than what he was fifty years ago.

On the other hand, the disadvantages of the kangany system are more striking. The most important is the system of paying a commission to the kangany on the wages of the workers in his gang. Generally, the commission is from 10 to 15 per cent. of the checkroll earnings of the labourers. The higher commission is given for increased attendance of the workers, or if the kangany has received no amount from the estate for advancing to his workers or if he has brought at least 80 per cent. of the workers he had agreed to. In the case of professional recruiters, they get a commission of 10 per cent. and a head money of 2 or 3 pies per worker per day is given to the sub-kangany who represents the recruiter in the estate. The commission received by the kangany is an " unearned income " and is not only obnoxious on economic and moral principles, but amounts to the cheating of the worker out of his legitimate dues. It may be argued, however, that the commission is not paid from the wages of the labourer but from the estate funds. It is immaterial who actually pays the amount in the first instance, as ultimately the amount of the commission is debited under the general head ' labour '. In fact, in the replies to the questionnaire many estates have included the kanganies' commission in the total wage bill. In addition to the kangany, there are sometimes sub-kanganies, called *kole-maistries,* who do not get any commission from the estate, any commission he receives being purely a matter of arrangement between him and the head kangany. The sub-kanganies do most of the recruiting work and if a worker bolts they suffer the loss on account of pre-employment advance.

The commission paid to the kanganies on the basis of the earnings of his workers has another baneful effect. The kanganies are not averse to bullying their workers to turn them out to work in order to have the maximum commission. The methods adopted to force the workers into the fields are accepted by the workers, by long usage, as their natural lot. Sometimes the workers are even beaten to drive them out for work. Another abuse of the kangany system is that the kanganies take up contract work from the manager especially for weeding and, in order to make better profits, employ women and children on the work and exact more work from them by making them work longer hours and without interval.

The maistries supply credit to the workers for sundry purposes and the advances are adjusted only at the time of settlement by which time they will have accumulated to 25 or 30 rupees. The workers are ignorant and illiterate and keep no account of the amounts received. At the time of settlement the maistries often cheat the workers by falsifying the accounts.

Again, as will be pointed out later, in many estates, especially of rubber and coffee, the settlement of wages is effected through the kanganies who have opportunities of keeping back part of the earnings of the workers. The allocation of quarters to the workers is left to the kangany who often shows

favouritism in the matter. It may be said, therefore, that the disadvantages of the kangany system far outweigh its advantages.

Can the Kangany System be abolished ?

The employers appear to be keen on retaining the kangany system, and, what is more strange, the workers also seem to share the keenness. The workers fear they would be helpless in times of sickness and of need without the kangany. From the workers' point of view the kangany is essential, for without him they cannot obtain advances of money to meet their sundry expenses and sometimes when unforeseen needs arise, such as sickness or death, they have no other source for borrowing than the kangany. The planters think that in the absence of the kangany the workers would go to the usurious money-lender. The feeling of helplessness of the worker without the kangany is the result of ignorance and want of education. It has to be pointed out that in South and Central Travancore where the workers are more educated they were all one in demanding the speedy abolition of the kangany system. As the Madras Government puts it " labour should be gradually educated to stand on its own legs."[1] The abolition of the kangany system would go a long way in educating the labour in plantations to stand on its own legs. If along with the abolition of the kangany system, weekly or fortnighly settlement of wages is also introduced, it would help smooth the difficulties that labour might at first feel for want of a person who would give them the necessary advances for their sundry requirements. The continuation of the kangany system would mean the continuation also of the rut in which plantation labour has been living for the last fifty years.

The objection of the planters to the abolition of the kangany system is the fear that without the kangany they will not be able to recruit labour for their estates. There seems to be no adequate ground for that fear for it has been already stated that the percentage of the workers returning to the same estate year after year is from 60 to 90 so that it can be reasonably hoped that the large majority of such persons at least would come to the estate without the persuasion of a kangany. Further, as the Royal Commission speaking of recruitment in Assam observed. " If the attractions of tea garden life in Assam are increased, the result should be that recruits will offer themselves at the depôt without the intervention of any intermediary ".[2]

Another reason why they want to retain the kangany is that they can fix the responsibility for the pre-employment advance given to labour on him and recover it from him if a worker who has received an advance bolts from the estate. But if the system of pre-employment advance is abolished altogether or restricted to a small amount this reason also loses its force.

If an alternate method for recruitment of labour is required, the planters can enlarge the scope and functions of the Labour Department of the United Planters' Association of Southern India which now assists the kanganies in the recruitment of labour and their transport from the villages to the estates. The Labour Department has already about 40 agencies spread throughout the recruiting areas and it can easily undertake complete responsibility for the recruitment of labour and become a counterpart of the Tea Districts Labour Association which is the planters' agency for recruitment in North India. It is likely that with the institution of Wage Boards recommended elsewhere and the enforcement of a minimum wage, the planters would want to economise and it would not be a wrong guess that they would first economise on the

[1]Development Department G.O.No. 108, dated the 12th January 1939.

[2]Report of the Royal Commission on Labour in India, p. 370.

kangany's commission. The same planters who now advocate with vigour the continuance of the kangany system would then probably find arguments and methods for its abolition.

Pre-employment Advances.

From the very start, the recruitment of labour for plantations was based on a system of advances. With the repeal in 1929 of the Madras Planters' Act of 1903 which had introduced the penal contract as a protection for the planter against the loss of advances made to his workers, the advancing of large sums to the workers has ceased. During the years 1929 to 1939 the planters gradually brought down the amount of advances with the result that in some estates advances were allowed only up to a maximum of Rs. 5 or Rs. 7-8-0 per worker and in a few others the system of advances was stopped altogether. But the exigencies of the war and the competition the planting industry had to face in the recruiting districts have made it revert to the system of advances and increase their size considerably. Today the pre-employment advance ranges from Rs. 10 to Rs. 25 and is even more in some areas like Munnar and Mysore.

Often the workers execute promissory notes in favour of the maistries for the amounts advanced. Sometimes the estates verify the amounts from the workers and, if admitted by them, they are debited to their account in the checkroll. The advances are recovered by deductions from weekly or monthly wages or at the time of the final settlement. No interest is charged by the estates. These amounts, however, do not represent the total advances taken by the workers; for, in addition to these amounts given with the cognisance of the estates, the maistries very often give further amounts, sometimes up to Rs. 50 per head, to coax them to join their gang. Estates usually help the maistries to recover these amounts if admitted by the labourers. Some Superintendents said that they could not assert that the maistries did not charge interest on the amounts advanced by them. In Mysore the writers who recruit labour charge interest for advances over and above those given by the estate.

The system of pre-employment advance means that the plantation worker is at a disadvantage right from the start; and the earlier the system is abolished the better for all concerned. The pre-employment advances are meant for (a) meeting travelling expenses to the estate (b) clearing off any sundry debts the worker has in the village and (c) leaving a small amount for his dependents who stay behind. A further motive in giving the advances may be to offer an inducement to the worker to enter employment and, in some cases, to secure a hold over the worker after he has been recruited. For example, in some estates in the Shevaroys, where weekly settlement is in vogue, a deduction of four annas per week is made towards the recovery of advances, though many workers desire that eight annas should be deducted every week so that they may be soon relieved of the burden of the advance. The estates do not obviously allow the higher deduction for fear of losing their hold on the worker. The Whitley Commission condemned the practice of giving advances and said, " We consider that if an employer or his agent finds it necessary to advance travelling expenses to secure labour he should pay these himself. The practice of giving an advance in addition to travelling expenses is one that lends itself to abuse : few workers can resist the prospect of cash in hand, which is often unwisely spent and which may secure their being bound to serve an employer under hard conditions ".[1] If the recommendation of the Commission, *viz.*, that the recovery of any amount advanced to meet the expenses of recruitment be made illegal, and that so far as other advances are concerned,

[1]Report of the Royal Commission on Labour in India, p.237.

no amount advanced should be recoverable except from the first wage payment, be implemented, it will go a long way in helping the worker out of a vicious circle of advances and employment to work them off. Some estates do not pay such advances and have found no difficulty in recruiting labour. It may be added that advances are legally irrecoverable in Ceylon.

The question of pre-employment advances in plantations was considered by the Madras Government in 1939. "The Government consider it desirable to discourage large pre-employment advances and are of the view that in no case should such advances exceed Rs. 20. The Government also consider that no pre-employment advance should be recoverable from the worker unless it has been disbursed in the presence of a village officer or some higher revenue official and unless the transaction has been reduced to writing and attested by the officer present. A copy of the document should be given to the worker and the original should be sent to the employer through the maistry concerned. The Board of Revenue is requested to issue necessary instructions to Collectors in the matter."[1] In the investigations, however, it was found that the attestation of the pre-employment advances was not generally done by the village officer or any other higher revenue official.

In Cochin State some of the estates pay advances even to non-resident local labour.

Rejected Workers.

On coming to an estate if any worker is rejected as unfit, the way expenses and advances, if any, given to him are the responsibility of the kangany. It is said that the kanganies pay the fare of such rejected labour back in order not to be discredited in their recruiting areas. But as they were found recovering the amount from other workers, some estates have started the practice of bearing the expenses themselves. In a good many cases, however, they are not paid and many a vagrant labourer is seen roaming about in plantation areas and nearby towns. The number of rejects has fallen since the beginning of this war due to the paucity of labour but the problem will again be acute in the post-war period. Payment of the return fare of rejected labour should be made the responsibility of the employer. It would be better still if the medical examination of the recruits is arranged in the recruiting areas.

Conditions of Employment.

When a labourer is recruited there is an understanding that he should work on the estate for about 10 months. There is no contract between the labourer and the employer, although some estates have a written agreement with the maistry stipulating that the labourers supplied by him should work for 10 months. Most estates seek to hold labour by making certain emoluments contingent on the completion of a specified number of days' work, normally 200. The emoluments usually so paid are way expenses and blanket allowances. The maistries also make every effort to retain the goodwill of their gangs and to prevent the reduction of their number with a view to safeguard their commission. The labourer is free to leave the estate and to seek employment elsewhere provided no arrears are due from him. Some estates will not employ a

[1]Development Department G.O. No. 108, dated 12th January 1939.

labourer from another estate unless he produces a discharge note showing that his account has been settled.

Crimping of Labour.

'Crimping' is the enticing of labour already working in another estate. This can be done either by offering higher wages or by luring the kanganies with a higher rate of commission. Usually there are district agreements among the planters to prevent this. "It has been a cherished idea among the planters that each district should settle its own rates of pay, advances, contract rates, etc. In fact, it was this idea that brought into being the district association. There was to be no cutting each other's throats by raising rates, crimping your neighbours' labour or, otherwise, not playing the game, but utopia is not reached so easily. Undoubtedly, much good resulted; men who have agreed to a certain course do not so readily wander from it as those unbound and a public opinion of some force developed. But the exceptions were and are many. I have heard a prominent planter say that rules were excellent, but if a serious shortage of labour occurred he would not remain bound by them, and what he had the courage to say is the unconfessed creed of many others."[1]

The United Planters' Association of Southern India by-law in this matter is as follows :—

"Any member, or a labour supplier of a member, who employs or advances or enters into contract with any other labour supplier, sub-supplier or labourer who is proved to be indebted to or under contract with any other member or his labour supplier or sub-supplier shall, on demand, either cease to employ him forthwith or pay up the debt as proved to the satisfaction of the Executive Committee, if the member with the prior claim is willing to accept it, provided in the case of labour suppliers only, no claim shall be admitted if the claim is legally time-barred."

Sources of Labour Supply.

The whole of the labour employed in the plantations comes from South India. In Mysore, Coorg, parts of Malabar and the Nilgiris, Cochin and Travancore, a certain amount of the labour employed is strictly local, *i.e.*, resident in adjoining villages and comes to work on the estate each day. Such labour plays only a minor part in the larger tea and coffee estates but is of some importance in rubber. Resident labour is recruited from three linguistic areas, *viz.*, Tamil, Malayalam and Canarese. The important Tamil districts for the recruitment of labour are Tinnevelly, Coimbatore, Salem, Madura, Trichinopoly and Ramnad. The Moplas of the Malabar district have been the perennial source of recruitment for rubber tapping although recently the peasant classes of Travancore and Cochin have taken to this work and are employed to a considerable extent as tappers. The Canarese speaking labourers are mostly from South Kanara district and Mysore State. In the Nilgiris, the Wynaad, and Coorg, certain hill tribes such as Yeravahs, Kurbas, and Panias are available as a source of local labour; and in the Shevaroys the local tribes, called 'Malayan' are available. The following table taken from the United Planters' Association of Southern India Standards for labour welfare gives the sources of estate labour and the districts to which it goes.

[1] E. G. Windle, Modern Coffee Planting, p. 63.

TABLE 89

Summary of labour census on estates belonging to District Associations taken on 15th December 1943

Recruiting District	Anamallais	Central Travancore	Kanan Devan	Munda kayan	Mysore	Nelliampathies	Nilgiris	Nilgiri-Wynaad	Shevaroys	South Travancore	West Coast	Wynaad	Coorg	Total	%
Anantapur	..	..	..	..	6	..	4	..	..	..	..	..	313	323	0·2
Arcot, North	233	97	998	298	491	..	401	108	..	22	..	4	30	2,682	1·4
Arcot, South	583	156	380	..	78	4	739	121	1	..	..	34	..	2,096	1·1
Chingleput	27	314	3,159	..	48	8	60	5	..	7	..	..	..	3,628	1·8
Chittoor	17	2	77	..	337	3	92	5	..	..	..	..	4	537	0·3
Coimbatore	10,588	279	79	77	452	323	8,135	704	8	..	10	911	385	21,951	11·3
Coorg	..	..	..	..	..	..	111	4	..	..	..	..	1,745	1,863	0·9
Ganjam	1	..	..	..	3	7	20	34	..	..	..	31	..	93	..
Guntur	..	..	..	..	..	..	..	2	..	..	..	..	..	2	..
Kanara-South	32	..	..	389	8,902	..	..	18	..	69	7	2,430	4,767	16,614	8·5
Kanara-North	..	3	..	24	85	..	..	7	..	..	..	99	..	218	0·1
Madura	3,353	1,253	3,156	38	28	246	224	74	..	38	67	2	61	8,540	4·4
Malabar	3,115	527	70	1,148	1,074	772	2,286	4,036	..	256	5,542	7,831	1,783	28,440	14·6
Nilgiris	85	..	9	..	65	..	2,152	3,508	..	1	..	4	..	5,824	3·0
Ramnad	1,358	780	4,084	79	..	..	8	..	..	48	..	..	..	6,367	3·3
Salem	1,993	350	177	2	302	240	1,878	1,005	2,699	2	..	65	87	8,800	4·5
Tanjore	114	28	37	..	..	17	13	10	..	4	..	..	..	223	0·1
Tinnevelly	7,434	9,557	18,461	464	6	208	1,493	96	..	4,064	104	27	164	42,078	21·6
Trichinopoly	3,330	815	77	2	17	16	1,123	243	..	13	70	42	46	5,794	3·0
Cochin	1,309	386	436	27	148	617	364	143	..	18	2,279	109	12	5,848	3·1
Mysore	7	..	10	..	2,985	..	3,370	1,498	..	..	..	433	1,657	9,960	5·0
Pudukottah	10	58	..	..	..	..	14	..	..	3	..	..	1	86	..
Travancore	1,022	10,455	994	3,810	238	61	542	57	..	5,381	259	100	5	23,024	11·8
Total	34,611	25,060	32,204	6,358	15,265	2,522	23,139	11,678	2,708	9,926	8,338	12,122	11,060	194,991	100

The table 88 gives figures for the greater part of the acreage under the United Planters' Association of Southern India which represents about 60 per cent. of the total acreage under plantation crops in South India. The acreage not represented by this Association consists mainly of coffee and cardamom and, to a lesser extent, rubber. It is probable that the unrepresented coffee areas draw a substantial amount of labour from Mysore and South Kanara, and the cardamom areas of Travancore from the Cumbum valley in Madura and Ramnad districts. Some of the coffee and a considerable part of the rubber areas draw their labour from local source. With these qualifications, the percentage of labourers recruited from various recruiting districts given in the last column of the above table holds good for non-member plantations also. It can be seen from the table that as far as the main planting and the main recruiting districts are concerned, the distances between them are 100 to 300 miles. Speaking roughly, it may be said that the labour employed in the large tea districts of Central Travancore, Kanan Devans, Anamallais and the South East Nilgiris is mainly Tamil from Tinnevelly, Coimbatore and Madura districts. The western districts along the foothills of the Ghats derive the greater part of their labour from the West Coast districts. In Malabar a substantial number of Moplahs are employed on both tea and rubber estates. The northern parts of the Nilgiris, the Nilgiri-Wynaad and parts of Coorg draw a large part of their labour from Mysore, mainly from the Mysore and Tumkur districts. The Mysore planting districts and parts of Coorg draw the greater part of their labour from South Kanara.

Except the Mysore labour and some of the Malayalee labour, most estate labourers are drawn from the landless agricultural working classes. Many of the Canarese labourers from Mysore are small landholders who seek work to relieve pressure on their heavily encumbered properties. The Tamil labourers are hard-working but are not clean in their habits, while the Malayalees are clean but are not fond of hard work and are generally spendthrifts. The Canarese are a thrifty hardworking people whereas the Moplah is less thrifty and more irregular in attendance.

Inspection of Estates.

At present there is no regular system of periodical inspection of labour conditions on plantations in South India except in the Cochin State where the Director of Public Health and the District Magistrate have been charged with the duty of seeing that the Rules framed in the interests of labour are enforced properly. In the Madras Province the District Health Officer in the course of his routine tours advises plantations on health matters.

WAGES AND EARNINGS.

The most important thing in which all labour is interested is wages. In the plantation industry in South India both the time rate system and the piece rate system prevail. In tea, coffee and, to some extent, in rubber, the harvesting of the crop is paid for on a piece basis, while all other work is paid for on time basis. Even the time rates are generally governed by a rough idea of task ; that is to say, the workers are expected to finish a certain task for earning their daily rates of wages. For example, a pruner should prune a certain number of tea bushes, a weeder should weed a given area and so on. In some cases a task is fixed and work over and above the task is paid for by additional wages. This applies especially to spraying coffee, where completion of the work in a limited time is important. Work may also be paid for strictly on a daily basis, with the labourer putting in the full eight hours which is a customary working day on South Indian plantations. This applies especially to work which cannot easily be formulated in a task, such as care of nurseries, treatment of localised attacks of pests or diseases, transport of

seedlings, manures and water for spraying, jungle cuttings for compost, mulching or shading and similar tasks. Certain tasks calling for a high degree of care or skill are also paid for in this way to ensure that efficiency is not sacrificed for speed.

Time rates.

The rates of time wages are generally uniform in the various plantation districts, there being a general agreement regarding these rates by the district associations. The United Planters' Association of Southern India has a by-law as follows :

" No member other than a coffee member shall raise the pay of coolies without giving two months' notice of his intention to the Secretary of the United Planters' Association of Southern India for circulation to the other members."

In normal times this rule has been generally observed, but under the stress of labour difficulties during the past one year or two, there has been a tendency to break this rule and the Association has taken a lenient view of such breaches. Generally speaking, tea estates pay a higher rate than coffee and rubber. But the coffee estates in the Anamallais, the Nilgiris and Munnar pay the same rate as paid by the tea estates. The following table illustrates the basic rate of wages paid at present in the important planting districts :—

TABLE 90

Daily basic wages in annas in South Indian Plantations, 1944.

District	Men	Women	Children
South Travancore	6*	5	2½ to 4½
Central Travancore	7*	5	4
Munnar	7*	5	3½ to 4½
Anamallais	7*	5	3 to 4
Nilgiris	7	5	2 to 3
Wynaad	7	5	3 to 4
Malabar	6	5	4
Shevaroys	6	5	2½ to 4
Coorg	6	5	3 to 4
Mysore	6	5	3

*Some of the men workers get 1 anna more.

The rates of wages in tea, coffee and rubber estates generally are as shown below :—

TABLE 91

Rates of wages in annas in tea, coffee and rubber estates, 1944.

Plantation	Daily rates of wages		
	Men	Women	Children
Tea	7	5	3 to 4½
Coffee	6	5	2½ to 4
Rubber	6	5	4

In Central Travancore, Munnar and the Anamallais, a small proportion of men workers, say 10 to 15 percent, such as pruners and other skilled and experienced workers and factory workers are given an anna extra over the daily rate. The kanganies also receive an anna extra as wages. In Cochin casual workers are given a consolidated wage of Re. 0-9-9 for men and Re. 0-7-9 for women.

It would be interesting to study the trend of wages in the plantation industry during the last 10 or 11 years. The following table gives the rates in different districts from 1934 to 1944.

TABLE 92

Rates (in annas) of daily wages in plantations, 1934-44.

Year	South Travancore			Central Travancore			Munnar			Anamallais		
	M	W	C	M	W	C	M	W	C	M	W	C
1934 ..	.. ..	..	..	6	4	3	6 to 7	4	2½ to 3½	6	4	
1935 ..	.. 5 to 6	4	2 to 3½	,,	,,	,,	,,	,,	,,	,,	,,	
1936 ..	.. ,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	
1937 ..	.. ,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	
1938 ..	.. ,,	,,	,,	6 to 7	,,	,,	,,	,,	,,	,,	,,	
1939 ..	.. ,,	,,	,,	,,	,,	3 to 4	,,	,,	,,	7	5	
1940 ..	.. ,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	
1941 ..	.. ,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	,,	
1942 ..	.. ,,	,,	,,	6½ to 7	,,	,,	,,	,,	,,	,,	,,	
1943 ..	.. ,,	,,	,,	7 to 8	5	4	7 to 8	5	3½ to 4½	,,	,,	
1944 ..	.. 6 to 7	5	2½ to 4½	,,	,,	,,	,,	,,	,,	,,	,,	

Year	Nilgiris			Wynaad			Malabar			Sheovroys		
	M	W	C	M	W	C	M	W	C	M	W	C
1934	6	4	2 to 3	6	4		4	3	2	5	4	1 to 3
1935	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1936	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1937	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1938	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1939	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1940	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1941	,,	,,	,,	,,	,,		,,	,,	,,	,,	,,	,,
1942	,,	,,	,,	,,	,,		5	4	3	,,	,,	,,
1943	,,	,,	,,	,,	,,		5	4	3	,,	,,	,,
1944	7	5	,,	7	5		6	5	4	6	5	,,

Year.	Coorg*			Mysore.			Cochin.		
	M	W	C	M	W	C	Tappers	Men (local)	Women
1934	5	3		..	..	..	5	..	..
1935	,,	,,		4	3	1½	5	4	3
1936	4	,,		,,	,,	,,	,,	,,	,,
1937	4	,,		,,	,,	,,	6	,,	,,
1938	5	,,		,,	,,	,,	,,	,,	,,
1939	,,	,,		,,	,,	,,	,,	,,	,,
1940	,,	,,		,,	,,	,,	,,	,,	,,
1941	,,	,,		,,	,,	,,	6	5	3½
1942	,,	,,		5	4	1⅓	6	5	3½
1943	6	4		5	4	2½	6	6	4½
1944	6	5	2 to 4	6	5	2⅓	7	6	4

*The Consolidated Coffee Estates pay 7 annas to men.

It will be seen that during the last decade wages were higher in the tea districts of Central Travancore, Munnar, the Anamallais, the Nilgiris and the Wynaad. Wages were lower in the other districts where coffee and rubber are the major crops. This is because coffee passed through a severe depression during these years till the outbreak of the war and rubber prices were very low up to 1935. This does not, however, justify the lower rates of wages in coffee and rubber plantations at present. Apart from these basic wages, the plantations give various concessions which will be dealt with later.

Tasks.

As already remarked, the earning of the basic rate is governed by a rough idea of task. The worker is expected to finish a certain task before he is credited in the checkroll with his daily wage. But the rule regarding the task is not very rigid ; and normally even if the task is not wholly finished, the worker is given the basic rate. The estate Superintendent bases the task on his experience of many years and if a task is found to be hard it is soon revised. There are different tasks for different types of work such as pruning, forking, weeding etc. The tasks vary from district to district and from estate to estate in the same district. It even varies from field to field in the same estate. It is neither possible nor practicable to fix a certain task which will apply uniformly to all districts or even to all estates in the same district. The ardousness of the work varies with the nature of the soil, climatic conditions, and the general lay of the land. The variations in task from district to district can, therefore, be understood. But such wide variations as do actually exist cannot be ascribed to the nature of the soil or climatic conditions. For example, for pruning of tea the task varies from 80 to 100 bushes in the Nilgiris, 120 to 140 bushes in the Anamallais and the Kanan Devans and 175 to 200 bushes in Central Travancore ; and when the workers in Central Travancore complain that the task is too heavy, the fault is not all theirs. There was an old practice to set a task per day and at the end of the week to divide the work done by the daily task and give the workers wages according to the number of tasks finished. It was very common that workers who had worked for six full days earned on this computation wages for only 4 or 5 days. This practice has been given up but it still exists in some estates in the Wynaad.

Another abuse regarding the task which is common in all plantations and which should be checked at once is that the workers have actually to do more than the daily task set by the Superintendent. He allots a certain number of workers for a particular work. The field conductor sends one or two of the workers for his personal household work and the kangany deputes another to look after his cattle or gather firewood for his kitchen, with the result that the remaining workers have to finish the task of these absentees also in addition to their own.

It was complained that in 1939 the tea estates, especially those in the Anamallais, raised their tasks when they raised the wages by one anna. It appears that the allegation is not wholly unfounded. The cost per acre, year by year, on certain items of plantation work was furnished on request by two estates in the Anamallais and is given below.

Estate A.

Year	Pruning	Forking	Weeding
	Rs.	Rs.	Rs.
1938	13·77	6·57	17·76
1939	13·24	4·05	18·12
1940	13·55	2·88	16·60
1941	13·69	3·76	17·18
1942	13·01	4·01	17·32
1943	13·09	4·18	17·17

Estate B.

Year	Pruning
	Rs. A P.
1938	12 2 11
1939	13 4 9
1940	12 5 4
1941	12 10 6
1942	12 12 4
1943	13 9 3

It will be seen that there is no appreciable increase in the cost of the various works per acre after 1939 when the wages were increased. On the other hand, in certain works the cost per acre has decreased. Now, in addition to the increase in wages by one anna in 1939, they are giving grain concession since 1941 and a dear provision allowance since 1942. If, in spite of these added costs, the cost per acre has not increased it only shows that tasks have been increased also. There is, of course, the possibility that on account of the present scarcity of labour the estates are not working in the same thorough manner as in pre-war time. But it must be remembered that pruning especially is an important work and cannot be neglected at any cost. Moreover, in the two estates to which these figures relate employment has not decreased appreciably; on the contrary, the first estate actually registers an increase in the number of persons employed compared to 1939.

Even though tasks in the plantations do not lend themselves easily to any standardisation, certain broad principles may be prescribed in deciding a task. For example, a task should be such that a worker of average skill and diligence should be able to complete it within the normal period of work. Under no circumstances should wages be withheld for not finishing a task, as is sometimes done at present ; if a worker is unable to finish a given task, he may be put on some other type of work.

Contract Work.

Certain types of work such as weeding are given out on contract, usually to a kangany, at a fixed sum per acre. The work is done sometimes after the ordinary task is finished or on the weekly holiday. The general practice for contract work is that the actual workers are credited with their daily rate as usual in the checkroll and paid in the usual course and the kangany is credited with the contract amount and debited with the workers' wages, the difference constituting his profit. This system lends itself to a great deal of abuse, for the kangany often drives the workers to work harder and for longer hours with a view to increasing his profits. The evil of sweating becomes evident especially as mostly women and children are employed by the kangany on his contract work. Generally they are made to work one to two hours beyond the normal working period and instances of corporal punishments of children in order to exact more work are common, especially in the Kanan Devan district. In some estates in South Travancore, children are not allowed to do plucking or any other work but have to work on the kangany's contract work. If a contract work is, however, given to a family which by working at leisure and during convenient hours strives to earn a little subsidiary income there is nothing to complain. It is time that the present pernicious system is stopped.

Fines and Deductions from Wages.

Fines are rare in the plantations. The only occasion when fines are imposed is when cattle belonging to the workers trespass on estate land. Such cattle are tied up in a cattle pound maintained by the estate and the workers

have to pay 8 annas to a rupee for their release. There is, however, an objectionable system of punishing workers by forfeiting part or whole of their daily wages. The punishment is effected by not entering their names in the daily checkroll for the days on which they have worked and the workers are in absolute ignorance of it. It must be said, however, that the Superintendents are not often responsible for this punishment but the field writer, on whose pocket checkroll the estate checkroll is based, plays the mischief. Formerly the estates used to punish workers by giving them half name (which implies half pay for the day) for neglect of work or late coming. But the entering of half names in the checkroll is discontinued, as these entries have a bad habit of inviting instant attention from any one examining the checkroll. Instead now the estates mark them wholly absent or leave columns blank, and, at the end of the month, convert the half names into proportionate full names and make the necessary entries.

Piece-rates.

In the plantations, piece wages are generally paid only for harvesting, *i.e.*, plucking in tea, picking in coffee and tapping in rubber estates.

In tea plantations, the rate for leaf plucking was uniform until 1942, being 3 pies per lb. of leaf plucked. After 1942 varying rates are paid from district to district and even from estate to estate. The rates vary from 3 pies to 4 pies per lb. Many estates pay 3 pies per lb. in the months of heavy flush and 4 pies in the slack season. In some estates the procedure is to pay 4 pies per lb. during any month when the plucking average per worker per day falls below 16 lbs. A few estates pay a uniform rate of 4 pies per lb. throughout year.

In South Travancore, 5 months are generally considered as slack season and 7 months as busy season. In the Anamallais 3 months are considered slack and 9 months busy. In all the other districts 6 months are considered slack and 6 months busy. Generally June, July and August and December, January and February are the slack months.

Usually only women are employed on plucking and on many estates a good number of children are also employed on it. In the busy months, a number of men workers are also put on plucking. The men workers, however, are not skilled pluckers, and though generally they pluck sufficient to earn the basic rate very often they fall short of the rate. To compensate them some estates pay them 4 pies per lb. In some other estates men who are put on plucking are paid their basic rate whether they earn it or not. The Government of Madras recommended that a uniform method should be adopted in the case of all pluckers, both men and women, and that they should invariably be given the basic rate, whether they earned it or not.

The green leaf plucked by the workers is generally weighed twice daily. The weighment is done by the plucking writer assisted by the field conductor, either in the factory or in the muster shed or at some convenient spot in the field if it is distant from the factory or the muster shed. One weighment takes place at midday and the other in the evening. Workers plucking in fields near the factory have to bring the green leaf to the factory for both weighments. The pluckers bring the leaf to the place of weighment, spread it on the ground on a gunny bag and remove stalks and coarse leaf as otherwise they are penalised by heavy deduction or entire forfeiture of the leaf. Then they gather their leaf into their basket and one by one take the leaf to the plucking writer for weighment. The writer weighs the leaf, makes deduction, writes the net weight on a slip of paper and gives it to each plucker. The plucker produces the slip along with the leaf collected after the first

weighment at the second weighment and the total net weight is entered in the plucking writer's pocket checkroll which is sent to the office for entering the quantity of leaf plucked against every worker in the daily checkroll.

Generally the leaf from distant fields is weighed in the respective fields and carried to the factory in lorries or bullock carts or by a rope way as in the Anamallais and Munnar. Very often the pluckers themselves have to carry the leaf one to two miles to the factory. Sometimes they are paid extra for the transport but often they are not, though the United Planters' Association of Southern India has recommended payment for it.

The weighing is done by spring balances and the balances are said to be frequently tested by the staff or the Superintendent. But many of the balances were old and not sensible for weights up to two lbs. It is essential that the balances should be frequently tested. Leaf should be weighed in the plucking field or at a convenient spot not farther than quarter of a mile from the plucking field and responsibility for the transport of leaf to the factory should be entirely borne by the estate.

In this connection the Government of Madras observed as follows :— "The Government are not satisfied with the system at present obtaining in regard to the weighment of the leaf plucked. Several abuses have come to notice and the Government consider that the following system should be adopted in the future : There should be a fortnightly or monthly card index in which the weight of leaf plucked by each worker should be entered each day at the place of weighment, and at the end of the period the total amount of leaf collected should be also recorded in the card. Nothing should be entered in the card except in the presence of the worker concerned."[1] No such card index was found even in the Anamallais.

Deductions from Weight.

Deduction from the weight of green leaf plucked is a perennial source of complaint by the workers. The deduction, which is almost universal, is on account of dampness of leaf. Nearly all the estates base their deduction on the basis of a 25 per cent. outturn of manufactured tea, *i.e.*, it is presumed that four lbs. of green leaf will produce one lb. of manufactured tea and the Managing Agents insist that each estate should show this outturn Most of the tea gardens in North India have stopped the practice and a few estates in South India have also done the same. The rate of deduction is not uniform. Deduction on account of dampness is generally from 20 to 25 per cent. in South and Central Travancore, 10 to 15 per cent. in Munnar and the Anamallais and 15 to 25 per cent. in the Nilgiris and the Wynaad. These deductions are usual in the rainy season. Even in the summer months when there is no rain deduction from 5 to 10 per cent. is made. On days of heavy rainfall deduction from 30 to 50 per cent. even is not unknown.

In this connection it is desirable to examine closely the 'universally' accepted principle of 25 per cent. outturn. This outturn is said to be based on the experience of other tea growing countries. Whatever be the case in other countries, all the Superintendents in South Indian tea estates and the tea makers who were questioned about it were unanimous in saying that an average 25 per cent. outturn of manufactured tea was impossible in South India and that the average would be between 22 to 23 per cent. No attempt has been made hitherto to verify the exact percentage, not even by the Tea Scientific Experimental station at Devarashola. It is time, therefore, that the tea estates, or rather the Managing Agents, abandoned the principle of the 25 per cent. outturn. The following comparison of percentage of outturn,

[1] Development Department G. O. No. 108, dated 12-1-1939.

month by month, in two estates, one in the Wynaad making deduction and the other in the Anamallais not deducting, is interesting and shows that the deduction is made even in dry months.

TABLE 93

Percentage outturn of manufactured tea in two estates.

Month	without deduction	with deduction
January	..	26·22
February	24·84	26·03
March	22·96	28·28
April	22·57	27·98
May	22·00	26·02
June	20·67	24·07
July	20·98	22·67
August	22·13	23·29
September	21·56	23·43
October	21·88	24·66
November	21·92	25·57
December	21·44	26·01
Average for the year	22·5	25·4

The problem of deduction on account of dampness is easily solved once the revision of the percentage of outturn is accepted. It is true that the leaf plucked in the rainy season has particles of water sticking to it and that there is some justification for making a deduction on that account. But as the deduction is made even in dry weather, the argument that deduction is for dampness does not sound convincing.

In districts like the Anamallais and Munnar, there is an accepted rule that the deduction should not exceed 15 per cent. But the rule does not serve any practical purpose, for the estates at the same time insist on a 25 per cent. outturn and the field writers are obliged to deduct more than the maximum permitted. That some of the workers deliberately dip their leaf in water to get more weight is a favourite argument advanced in support of the practice of deduction. All men are not saints and the plantation workers are no exception. There certainly would be delinquents among them who resort to nefarious practices ; but their number is not large enough to warrant the necessity of continuously guarding against these practices. Further, it may also be that they are trying in their own way to counter their disadvantages under the system of usual deductions, for, the Superintendents of estates that make no deductions emphasised that dipping of leaf in water did not occur in their estates. It should also be remembered that plucking conditions in rainy weather are very difficult and that the workers have to be in the rain for long hours suffering cold and cramp, and the planters should certainly not grudge a little additional payment to the workers even if it is held that they have to pay for water. The following observations of an experienced planter in South India who makes no deductions and who has kept careful record of the outturn for the last several years show that actually there is no ' paying for water ' even in the rains.

" An interesting point arising from the statistics I have kept is that a heavy monsoon rain in June such as they get on Kadamane does not immediately produce a marked fall in outturn. The fall in outturn which may be down to 17 per cent. does not become pronounced until 3 to 4 weeks after the start of the heavy rain. Likewise the corresponding rise at the end of the monsoon

does not take place until 3 to 4 weeks after the heavy rains cease. The explanation would seem to be that surface moisture makes little difference to outturn—a big fall in outturn is due to a high content of water inside the leaf itself ".

As deduction has been given up by plantations in North India and by some even in South India, there is no reason whatever why others should not follow suit.

There is usually a 2 per cent. wastage in the factory on account of " fluff " (a fine brown dust), stalk and coarse leaf. No separate deduction is made on this account as this wastage is taken into consideration while making deduction for dampness.

Some estates make additional deduction from plucked leaf to meet the wages of women employed in factories to pick out stalk and coarse leaf from manufactured tea, of women engaged to look after children in creches and of children employed in removing the stalks sticking out unevenly on the bushes in a plucked field. It is argued that if pluckers pluck properly there is no need for estates to employ such women and children and that women engaged in creches are solely for the benefit of the plucking women. Estates which resort to this practice can be detected by the fact that such workers are credited with 20 lbs. of leaf per day in the factory checkroll. At least in one estate the workers were made to throw a handful of leaf, nearly 1 to 2 lbs. before weighment into a common heap as a contribution to the war fund. It was said that this was a voluntary act. But to accept that the workers were thus contributing on a purely voluntary basis 3 to 6 pies per day from their poor earnings for a purpose they little understand is to put a strain on one's imagination.

A comparison in some estates of the field weight of green leaf on which wages are paid to pluckers and the factory weight on which the 25 per cent. outturn is calculated will show that deductions are made even beyond what is necessary to assure the 25 per cent. outturn.

TABLE 34

Comparison of field weight and factory weight of leaf in certain estates.

Estate	Month or year	Field Weight	Factory Weight
South Travancore			
A	September 1944	1,721	2,074
B	June 1944	74,691	76,262
C	August 1944	24,915	30,676
Central Travancore			
D	June 1944	73,216	74,172
E	July 1944	53,482	56,792
Wynaad			
F	March 1944	209,498	212,390
G	1943-44	1,052,281	1,073,840
H	1943-44	230,477	240,059
I	1943-44	394,290	406,345

Some of the estates distribute the excess weight proportionately among the workers in the next month. But this is not a general practice. No-deduction system is only fair to the labour as it cuts out the human element of estimation at various places, from field to factory. There is a temptation for field writers, tea makers and even Managers to show good outturn.

Another disadvantage in the system of weighment of leaf is that the pluckers are illiterate and ignorant and do not know how to read the balance and the plucking writer exploits their ignorance to show favouritism to some at the expense of others. Complains were heard in many estates that unless the workers bribe the plucking writers they would not get the correct weight for their leaf. The planters argue that the staff are not interested in unfair deduction because they do not stand to benefit by it. But cases have been known in which tea makers and plucking writers combined and appropriated manufactured tea in excess of 25 per cent. A method to prevent all the abuses in the system of weighing suggested to us was to institute a system of check weighment by a representative of the labourers. But this system can also lead to abuses. The only real remedy lies in entrusting weighment of leaf to a responsible and decently paid person.

Piece rates in Coffee Estates.

Wages for coffee picking except for the first round called " fly " picking, are generally paid on piece rates. The rates are based on the number of bushels, " boxes " or other volume unit of ripe cherry brought in. Usually for the resident labour, a task, generally one box or one bushel, is set for a day's pay, and extra quantity above the task is paid for in cash. The tasks are small at the beginning and are increased as the season advances. Some estates weigh the crop but the volume measure is more usual. Weighment of cherries is better as measurement by box or bushel leads to malpractices. Crops vary so widely in coffee that the task set is highly variable as also the piece rate where this is given. The measures used also are not of the same size in all the estates.

The following table gives the average rates for coffee picking per bushel and the average size of the bushel in the important coffee areas.

TABLE 95

Piece rates for coffee picking, 1944.

District	Rate per bushel or box (annas)	Size of a bushel or box
Mysore	4 to 10	80 to 100 lbs.
Coorg	8 to 10	80 to 100 lbs.
Shevaroys	4 to 8	55 to 60 lbs.
Anamallais	10	30 Madras measures.
Palnis	4	20 Madras measures.
Nilgiris	8 to 12	82 lbs.
Wynaad	10	100 lbs.

Piece Rates in Rubber Estates.

In rubber estates tappers are paid at a piece rate or on a combination of piece rate and daily rate. Where the piece rate alone is in force it may vary from 7 pies to 15 pies per pound of dry rubber. When yields do not permit the earning of full standard wage, it is usual to pay on a task basis of tapping 250 to 300 trees, irrespective of the yield. A combination of tapping task and yield task is also usual.

In South Travancore the tappers are paid at the rate of 8 pies per pound of dry rubber or are on a daily rate of 6 annas. In the Mundakayam valley, which is the most important rubber area in India, the rates of daily wages are 7 annas. The usual practice, however, is to fix a task in two ways, that is, the tapper is required to tap 250 to 300 trees and also to bring in a yield of 6 to 8 pounds of dry rubber in order to earn the daily wage. Yields over and above the stipulated task are paid for extra at 8 pies to 1 anna a pound. Even

when the yield is slightly less basic wages are usually paid. If the yield falls appreciably the block is inspected and if it is found that tapping was careless the tapper is fined. The scrap rubber brought in by the tapper is also paid for at 8 to 9 pies per pound but this is not a general rule. Payment in some estates is solely by results, the rate being from 8 pies to 1 anna per pound. In Thodupuzha, another important rubber area in North Travancore, tapping is generally paid for on a daily rate of 7 or 8 annas, although in one large estate a piece rate of 7 pies per pound is the rule. In Malabar the rate is 1 to 1¼ anna per pound of dry rubber and 8 pies per pound of scrap.

In many estates rates are calculated in terms of Ceylon currency. Often the rate is 5 cents per pound which works out to 9 $\frac{3}{5}$ pies. The dry rubber content of latex brought in by tappers is measured by the metrolac, a scientific instrument designed for the purpose.

Fines are sometimes levied for bad work. A more unhealthy practice, however, is the withholding of the tapper's wage after he has finished the task allotted to him but, due to reasons beyond his control, is not able to bring in the stipulated quantity of rubber. It very often happens, especially in the rainy season, that when tapping is finished a sudden shower washes away the latex from the trees. The yield the tapper brings may be much short of the stipulated quantity or may at times be nil and he is not given any wages even though he has fulfilled his part of the bargain. Under such circumstances a few estates in Mundakayam pay the basic wage irrespective of the yield. The payment of the basic wage in such cases should be made compulsory.

Overtime.

In South Indian plantations, overtime is very uncommon for field workers and only occurs under exceptional circumstances. In the case of coffee only is there any regular overtime which is restricted to pulping in the crop season and the payment varies usually between one and two annas per hour.

In tea estates, extra work by labourers is permitted and paid for in a few items of work, though not strictly on the principle of overtime. During the flush season workers are put on Sunday plucking and the wages, unlike for week days, are not entered in the checkroll but paid in cash. In some tea estates in the Wynaad, pruners after finishing the task can continue pruning and are paid one anna per 20 bushes.

In coffee estates overtime is allowed in spraying. The payment for picking coffee especially in Mysore and Coorg has some features of overtime. Any quantity picked over and above the *hazira* is paid in cash every day at the *hazira* rate, and it is usual during the height of the picking season for the workers to earn on an average two annas per day as overtime wages.

It is a practice in rubber estates, especially when acute scarcity of labour is experienced, to follow a system of evening tapping. A labourer taps one block in the morning and another in the evening. For evening tapping some estates pay the same rate as for morning tapping while others pay half the rate. In some estates in Mundakayam and North Travancore during December which is the highest yielding month the same trees are tapped in the morning as well as in the evening. Or if a number of tappers absent themselves from work on any particular day, their respective blocks are tapped in the evening by other workers. For such evening tapping the wages are half the daily rate.

It was a practice in nearly all the rubber estates to make the tappers do other field work such as weeding, maintaining roads, spraying, etc., in the afternoon after they had finished tapping in the morning. During pre-war days such afternoon work was compulsory. Many estates paid 1½ to 2 annas per day for such afternoon task. At present the afternoon compulsory work

is discontinued ; but some estates leave such work to the option of the workers and pay the above rates for it.

In the factories, especially in tea factories, workers are employed on overtime during the rush season. But since the tea and rubber factories come under the Factories Act only as seasonal factories, the hours and the payment for overtime are not strictly regulated. Many estates do pay for overtime but only at the usual rate. There was even a complaint by factory workers in two estates that their overtime rates were only half the usual rates, the tea maker helping himself to the other half.

Concessions and Allowances.

The concessions and allowances granted to workers in plantations can be considered under two heads, *viz.*, those that are of a temporary nature instituted, for one reason or another, for the duration of the war, and those that are of a permanent nature. Under the first head come the dear provision allowance, grain concession and the war outturn bonus.

Dear Provision Allowance.

To meet the increased cost of living, dear provision allowance and the issue of cheap grain were started on the recommendation of the United Planters' Association of Southern India. A dear provision allowance of 8 pies per day worked for adults and 4 pies for children was started on 1st October, 1942, and in 1943 most of the estates increased it to 1 anna and 6 pies for adults and children respectively, although some estates, especially in the Nilgiris and the Wynaad, still pay only 8 pies and 4 pies. In Mysore and the Shevaroys the dearness allowance is only 6 pies and 3 pies. In some estates, chiefly in the Wynaad and South Travancore, the dearness allowance is conditional on the workers turning up for work for at least 22 days in a month. In Coorg no dear provision allowance is paid and is said to have been merged in the basic rate.

No dear provision allowance is paid for Sunday work.

Grain Concession.

Rice was supplied by most of the estates to their labour at cost price even before the war and it used to lead to considerable trouble over the quality of rice, price charged, etc. To eliminate a fruitful source of discontent and constant friction between the workers and the planters, the Madras government in their G.O. referred to before had suggested that the worker should be allowed to purchase rice from the market but this was not possible in war time as, apart from the fact that there are no markets close to estates in several cases, the workers would have found it almost impossible to purchase rice on account of its acute shortage and soaring prices. Most of the estates have met the situation by issuing rice and other grain at concession prices. The issuing of cheap grain was begun in October 1941 but only by 1942 did the majority of the estates start the practice. The United Planters' Association of Southern India Standards says, " On most large estates which buy their rice, it has been agreed that the issue to labourers should not be at a more expensive rate than four pucca Madras measures to the rupee. Estates buy rice at the current market price and, when the price is higher than this, the loss on the rice is borne by the employer. When rice is cheaper than the above quotation, it should be issued to labourers at actual cost. In other words, the estate should make no profit when rice is cheap and bear the loss when it is expensive. This same principle should be applicable to all staple foods. In the case of estates which do not buy their own rice, extra cash is given weekly at a rate approximately equal to the difference between the cost of rice delivered in that district

and the standard maximum price of four pucca Madras measures to the rupee. In some districts where the normal price of rice is lower than in the main Hill districts different scales of rice compensation have been adopted but they all work on the same principle ". The pre-war price of rice was about four pucca Madras measures to the rupee.

In the coffee areas of Mysore, Coorg and the Shevaroys, grain concession is not generally given though a few estates supply rice to their workers at concession rates. The following table illustrates the extent to which grain concession is given in different districts and its approximate monetary value per worker.

TABLE 96

Extent and monetary value of grain concession

District	Area covered (acres)	Number of workers benefited	Loss on grain 1943	Monetary value per worker per year
			Rs. A. P.	Rs. A. P.
South Travancore ..	6,894	3,521	2,12,046 5 0	60 3 6
Mundakayam	4,329	2,039	1,54,247 0 0	75 10 4
Central Travancore ..	9,993	10,288	6,15,267 5 0	59 12 10
Anamallais	4,276	3,104	68,918 2 0	22 3 3
Nilgiris	3,162	2,096	58,475 2 0	27 14 4
Wynaad	4,742	4,425	1,12,316 1 0	25 6 1
Malabar	2,204	945	25,737 10 0	27 3 9
Total ..	35,600	26,418	12,47,007 9 0	47 3 0

Note.—Losses on grain issue were high in Travancore as prices there were much higher than in British India.

If we separate figures for British India alone, we get the monetary value of the grain concession as Rs. 25|2|- per worker for the year 1943. Assuming that the average worker works for 200 days in the year this amounts to two annas per working day. If we add the dear provision allowance of one anna, the total allowance to compensate the rise in prices amounts to three annas per day. The aggregate wages in 1943 as compared to 1939 in the four districts is shown below :—

TABLE 97

Aggregate wages in annas in 1939 *and* 1943

District	Men			Women		
	1939	1943	Increase%	1939	1943	Increase%
Anamallais	7	10	43	5	8	60
Nilgiris	6	9	50	4	7	75
Wynaad	6	9	50	4	7	75
Malabar	4	8	100	3	7	133

The rise in the cost of living in Madras and two important centres in the planting areas is shown in the following table :—

TABLE 98

Cost of living index, 1939-1945

June 1936=100

Month & year	Madras	Coimbatore	Calicut
September 1939	103	102	103
January 1940	107	..	..
„ 1941	108	107	110
„ 1942	117	118	129
„ 1943	161	178	183
„ 1944	193	213	227
„ 1945	213	220	240

Not only is the compensation for the increased cost of living given to the plantation workers inadequate but even this inadequate help took a long time in coming. The grain concession was started only towards the end of 1941 and the dear provision allowance only in October 1942. Meanwhile prices of commodities and foodstuff were steadily mounting and the workers had a very bad time up to 1943. The general increase of 1 anna in the wage was effected only in 1944.

In the large majority of estates the grain concession is allowed only to the workers and not to their dependents. There are a few notable exceptions and in one estate two measures of rice are issued free every week to non-working children who attend schools and one measure to smaller children. The Kanan Devan Hills Produce Company gives ½ measure per week per non-working child at concession rate in addition to a free mid-day meal. The issue of grain to every worker is also strictly limited. Rice is the important staple food of the workers and the rice issue at present is only 1½ Madras measures per week for men, 1¼ for women and ½ to 1 for working children. Other grains such as wheat, ragi, bajri or maize, are also issued to supplement rice. Apart from the limited quantity supplied, nearly all the grain supplied is of very poor quality, which may be due to the present abnormal conditions and the scarcity of food grains. There is also a practice of long usage of issuing rice in proportion to the number of days worked. In other words, for every day of unauthorised absence during a week ½ measure of rice is reduced from the weekly ration. For absence on account of sickness certified by the estate apothecary no reduction is made ; but unless the worker is seriously ill, the apothecary does not usually issue a certificate. On the other hand, the worker often requires rest and such occasions may be frequent in abnormal times as the present when high prices, scarcity of foodstuffs, and, above all, the inferior quality of food grains lead to malnutrition. For estates to cut off the already meagre rice ration under any circumstance whatever is a social crime. The workers are forced to borrow to keep body and soul together. In one group of estates in Anamallais, this practice was discontinued on the advice of the medical officer who threatened that he would not be responsible for the health of the workers so long as it continued.

In some estates the concession rice is not issued direct by the estate but through shopkeepers who often cheat the workers in measure. Some estates do not issue food grains and some others, for example, in the Malabar district, issue rice and other food grains at cost price, but give a grain compensation allowance. In the Mooply valley in the Cochin State, the grain compensation allowance is Rs. 5|8|- per month. In Malabar the rate of compensation is related to the price of rice.

War Outturn Bonus.

The war outturn bonus was started towards the end of 1943 as a measure to secure regular attendance which had fallen off lately. The United Planters' Association of Southern India recommended a bonus of not more than 2 annas per week for 6 days' work. This, or some modification of this, has been widely, though by no means universally, adopted. In the Kanan Devan district and in estates managed by James Finlay in the Anamallais the bonus is paid at 8 annas per week for 6 days' work and 4 annas for 5 days' work. No bonus is paid for less than 5 days' work. In South and Central Travancore and the Nilgiris and the Wynaad some estates pay the bonus at 8 annas a week for 6 days' work while others pay it at Rs. 2 per month for 24 days' work. A few estates paying bonus on the monthly system pay Re. 1 for 22 or 23 days' work during the month. No bonus is paid for less than 22 day's attendance. In the Anamallais, the general practice is to give it on a yearly basis. Those who have worked for 220 days in the year are given a bonus of 12½ per cent. of their total checkroll earnings. In Mysore, Coorg, and the Shevaroys, the bonus is given only in a few exceptional cases. Some estates in Coorg, however, pay a bonus, though it is not called the war outturn bonus, of Rs. 4 to Rs. 6 a year to those who have worked for at least 200 days. The Consolidated Coffee Estates gives also an attendance bonus of one anna per day for 5 or 6 days' attendance in a week.

In rubber estates, tappers are required to work for 7 days in the week and the war outturn bonus is given only if they work all the 7 days including Sundays.

Children are paid only at half the rates for adults. The war outturn bonus is not generally earned by many workers.

The other concessions consist of a blanket allowance and travelling expenses, payment of which is usually contingent on the completion of a certain number of days' work, usually 200, besides free firewood and grazing, housing and medical aid.

Blanket (Cumbly) Allowance.

The United Planters' Association of Southern India recommendation in this respect is that the actual cost of a suitable blanket should be refunded to all labourers working in the hills after the completion of a period of 200 days' work. During pre-war time in some estates a free blanket was issued. But the present practice is to refund to the worker a portion of the actual cost of the blanket, may be a third, half or even two-thirds, according to the number of days worked. Some estates issue blankets at pre-war price and suffer the loss.

The blanket serves the workers as an outer wrap to protect them from the cold of the hills and as a water-proof to protect them from the rains. In the evening the women collect their gathered leaf in it and carry it to the factory. When they reach their quarters the blankets are wet and the workers dry them over the fire and the half dried blanket serves to protect them from the severe cold of night. It is their constant companion, a " tower of light by night and shade by day ". The planters should supply free to the workers a blanket and in addition a waterproof or at least another blanket for day time use.

The saris of the women pluckers in tea estates are spoiled by rubbing against the bushes and the clothes of the tappers in rubber estates are spoiled by latex. It is desirable, therefore, that the planters should give two yards of jute hessian to each plucker for wrapping round her as is done by one estate

in Mundakayam, and compensate the tappers partly at least by issuing a few yards of cloth free.

Way expenses.

The recommendation of the United Planters' Association of Southern India is as follows :—" The travelling expenses of a labourer recruited in distant villages should be refunded to the labourer by the employer after the said labourer has worked for a previously agreed number of days or months. No such agreement should exceed ten months. The refund should cover :—

(a) third class fare to the estate from station nearest to the village to station nearest to the estate.

(b) bus ticket from station to the bus stop nearest to the estate.

(c) an allowance to cover food *en route.*"

Paying of way expenses is not a universal practice except in the tea estates. Even there the practice is to pay only one way expense and even that is not paid in some estates unless the worker goes down to his village after the settlement. It would be better if the employers meet the way expenses of the workers both ways. Again not in all estates are the way expenses paid in actual relation to fares. A tapper coming to Mundakayam or South Travancore gets a way expense of Rs. 3 while he has to spend actually Rs. 5 to Rs. 6 one way alone. The maximum given as way expenses is Rs. 7|8|-.

Free Firewood and Grazing.

The planters speak of free firewood, free grazing for cattle, allotment of vegetable gardens and free issue of seeds as additional concessions. These concessions are minor and their value is negligible. Firewood is free in the sense that the workers can collect dry twigs and prunings from the estate or go to woods which are in many places near the estates and gather dry wood. No effort is made nor any expense incurred by the estate in regard to providing firewood for the workers. Some estates do provide grazing facilities for cattle. But only an infinitesimally small number of workers keep cattle on the estates. Only the staff and frequently the maistries keep cattle. In Munnar the principal company maintains a Veterinary doctor to help cattle owners. The extent of land available for vegetable gardens is very small. Circumstances in South India differ widely from those in the North in respect of cultivable land. The vast majority of estates in South India are situated in hill areas where ordinary agriculture is impossible. Where lands suitable for rice production are available, as in parts of the Wynaad, Coorg and Mysore, they are usually already occupied and not available for setting labour. It is clear, therefore, that the opportunity for providing labourers with land for their own cultivation is very strictly limited. Even those few families which get this concession are allotted not more than a cent of land where they grow a few plantain trees, tapioca plants and one or two vegetables like brinjal, lady's finger etc. This concession is not also generally found in coffee and rubber estates. In some estates in the Wynaad, a few workers are given paddy land for cultivation which is a substantial concession.

Housing and Medical Aid.

Free housing and free medical aid are no doubt important concessions enjoyed by the plantation workers. But as the Royal Commission has pointed out, we should avoid assessing any monetary value in the case of these concessions for two reasons. " In the first place, such amenities by long standing custom have been provided free of charge to the worker. In the second place,

his wage rates are already based on the assumption that the expenditure under this head falls on the employer and that the worker makes no direct contribution."[1]

Cash Value of Concessions.

The cash value of the various concessions is summarised as follows by the United Planters' Association of Southern India :—

TABLE 99

Cash value of concessions, 1944.

Concession	Cash value of concessions		
	Men	Women	Children
	As. P.	As. P.	As. P.
Dear provision allowance	1 0	1 0	0 6
Loss on grain*	2 to 4	1½ to 3	1½ to 2½
Contingent payments			
War outturn bonus	1 3	1 3	0 3
Blanket	3	3	3
Travelling Allowance	6	6	3
Total ..	5 to 7	4½ to 6	3 to

* This item is highly variable ranging from 1½ to 4½ annas per day and is not applicable to all plantation areas as already pointed out.

In its reply to the Supplementary Questionnaire, the United Planters' Association of Southern India states that it is impossible at present, even if it were considered desirable, to consolidate all the concessions into a cash wage. "In the first place", it continues, "estates have had to assume the responsibility of maintaining the supplies of food grains for the labour and it is obviously much simpler and more efficient for the estates to issue grains at a fixed rate to the labour and bear the loss than to pay the labour in cash and charge the cost price or the retail market price for their supplies. Grain prices have fluctuated so widely that it would have proved impossible to make the frequent readjustments in wages which these fluctuations would have demanded. In the second place, the replacement of the contingent payments by a consolidated wage would defeat one of the main objects of such payments —to secure a reasonable outturn of labour".

The consolidation of concessions into an aggregate wage need not be considered till after the war when the difficulties urged by the United Planters' Association of Southern India will have vanished. The blanket allowance and the way expenses should not, under any circumstances, continue as a contingent payment to ensure outturn. Concessions and contingent payments have a tendency to restrict the freedom of the labourers and have a demoralising effect in as much as they savour of charity whilst it is the natural right of every worker to receive a decent wage. A large body of planters are in favour of abolishing concessions in kind when the war is over and increasing cash wages by adding the present dearness allowance, outturn bonus and the difference in price of rice on the 1939 level.

[1] Report of the Royal Commission on Labour in India, p. 397.

A plantation labourer(man) gets a maximum of 12 to 14 annas per day including various concessions in kind. The agricultural labourer now gets wages varying from Re. 1 to Rs. 1|8|- per day. But it must be admitted that his work is of a casual nature and not permanent.

Subsidiary Income.

Subsidiary sources of income are very few in plantations. The only subsidiary income is by working on weeding contracts taken by the maistries or by individual workers. A few men workers in some estates earn one to two annas by carrying head loads of plucked leaf from the field to the factory or by doing odd jobs such as bringing of provisions, firewood or stones for building purposes. Some workers take to the making of baskets with bamboo and earn one or two annas during their spare time. Generally, however, leisure in plantations is rare and income from subsidiary occupations is not much.

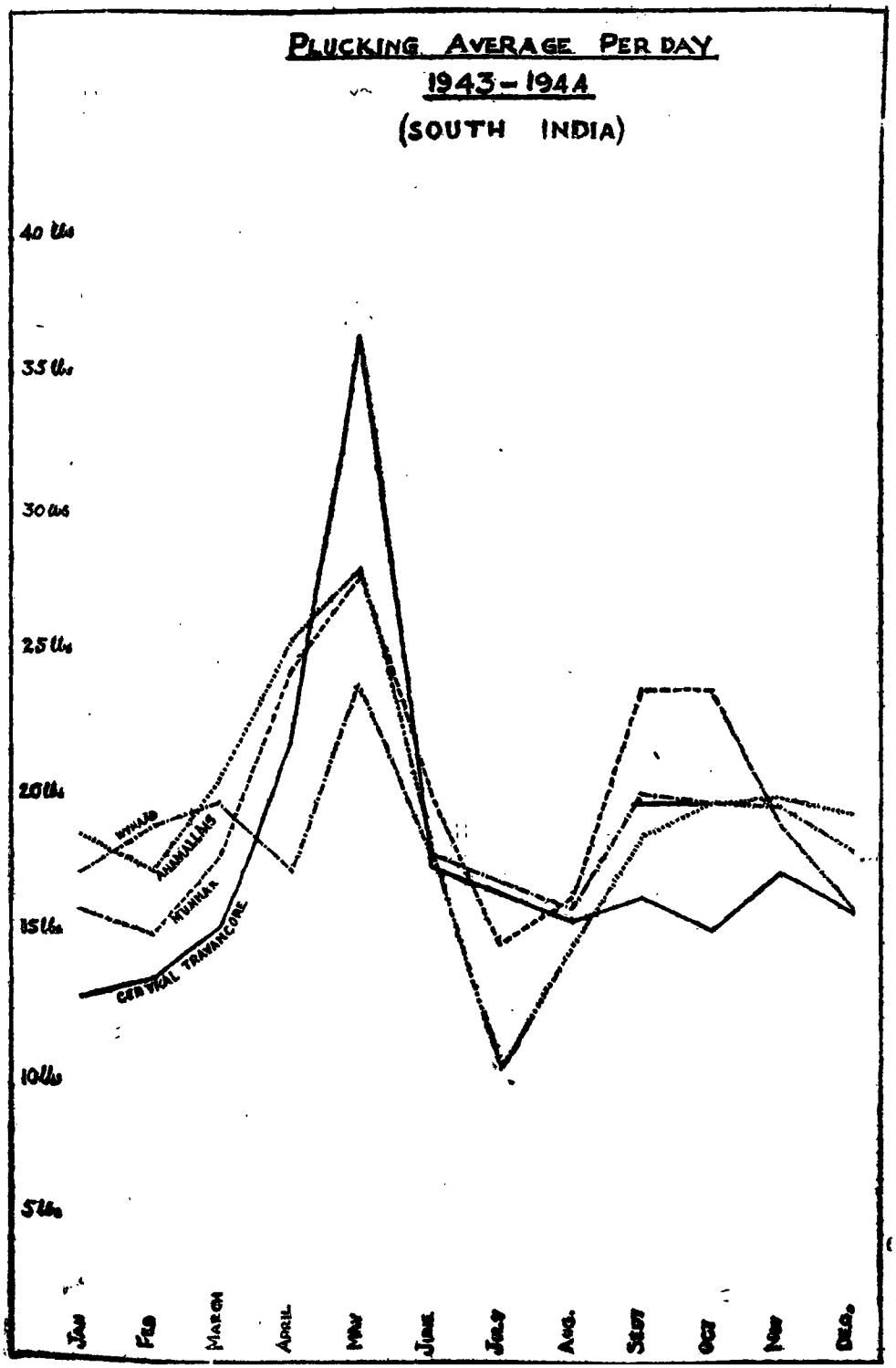
Earnings.

From the worker's point of view, earnings are more important than rates of wages. Earnings of male workers in plantations are strictly in proportion to the number of days worked, for nearly all men workers are on time rates. The average number of days a man works in a month in the plantations is only from 20 to 22. In tea and coffee estates women workers are invariably on piece basis and their earnings depend upon their skill and intensity of effort. In tea estates, it is said. that it is on plucking that good wages are earned. One certainly comes across many cases in tea estates where the pluckers earn up to even Rs. 30 per month, especially in the busy season of April and May, but such cases cannot form the basis of any generalisation. The plucking average per worker per day, month by month, was obtained from a number of estates for a period of five years and the quinquennial average of these in pounds is tabulated for the important tea districts in the following table.

TABLE 100

Plucking average in lbs., 1939—1943.

Month	Central Travancore	Munnar	Anamallais	Wynaad
January	12·9	16·0	18·8	17·5
February	13·5	15·1	17·5	19·0
March	15·3	18·0	20·7	19·9
April	22·0	24·5	25·5	17·6
May	36·5	27·8	28·2	24·0
June	17·7	20·3	18·5	18·2
July	16·7	14·9	10·8	17·2
August	15·8	16·6	16·3	19·7
September	16·6	24·0	18·8	20·4
October	15·5	24·0	20·0	20·1
November	17·5	19·1	20·2	19·9
December	16·1	16·3	19·7	18·4
Yearly average	18·0	19·7	19·6	19·3


PLUCKING AVERAGE PER DAY
1943 - 1944
(SOUTH INDIA)
40 lbs
35 lbs
30 lbs
25 lbs
20 lbs
15 lbs
10 lbs
5 lbs
WYNAAD
PANNIALLAMS
KUNNAR
CENTRAL TRAVANCORE
JAN
FEB
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT
OCT
NOV
DEC.

The averages in the above table are lowered to some extent by inclusion of children. Even so, the figures do not warrant the statement that good wages are earned by the pluckers.

The modal average of earnings of women pluckers in the sampled estates for March 1944 and the maximum earnings of women during the same month are given in the following table.

TABLE 101

Average and maximum monthly earnings of pluckers, March 1944.

District	Average earnings	Maximum earnings
	Rs.	Rs.
South Travancore	8 to 9	13
Central Travancore	10 to 15	26
Munnar	10 to 11	15
Anamallais	10 to 12-8-0	15
Nilgiris	10 to 12	14
Wynaad	10 to 12	17

The average monthly earnings of tappers in rubber estates in April 1944 and of workers in coffee estates in March 1944 are given in the following tables.

TABLE 102

Average monthly earnings of tappers in rubber estates, April 1944.

	Rs.
South Travancore	15 to 18*
Mundakayam	14 to 16
Thodupuzha	12 to 14
Malabar	12 to 13

* The average in a number of small estates is only Rs. 10 to Rs. 12.

TABLE 103

Average monthly earnings in coffee estates, March 1944.

District	Men	Women
	Rs.	Rs.
Nilgiris	..	8 to 10
Coorg	8 to 11	7 to 9
Mysore	7/8/0 to 11	6 to 9

Perhaps a better idea of the earnings of labourers in plantations can be obtained by dividing the total wage bill of estates for one year by the number of workers to which the total wage bill relates. The figures submitted by the individual estates in this connection are summarised in the table below.

TABLE 104

Number of workers and total wage bill, 1943-44.

District	Number of estates	Average number of workers	Percentage of			Wages		Number of estates paying overtime	Total wage bill	Average earnings per worker per year	Average monthly earnings per worker
			Men	Women	Children	Regulars earnings	Overtime				
						Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P	Rs. A. P.
South Travancore ..	9	6,394	48	44	8	774,981 2 4	1,093 2 0	2	776,074 4 4	121 6 0	10 1 10
Central Travancore ..	16	13,462	42	43	15	1,948,281 12 5	3,443 13 3	6	1,951,725 9 8	144 15 8	12 1 4
Munnar	31	30,682	41	42	17	3,398,725 10 3	..	..	3,398,725 10 3	110 12 4	9 3 8
Anamallais	16	15,933	45	46	9	2,013,825 11 9	42,392 11 9	10	2,056,218 7 6	129 0 10	10 12 1
Nilgiris	11	5,719	40	48	12	654,411 14 0	16,061 15 1	6	670,473 13 1	117 3 9	9 9 4
The Wynaad ..	9	8,902	40	51	9	1,080,030 10 4	17,793 11 5	6	1,097,824 5 9	123 5 2	10 4 5
Malabar	8	3,090	60	35	5	394,740 8 11	1,663 12 5	8	396,404 5 4	128 4 7	10 11 1
Shevaroys	7	535	44	45	11	65,288 6 8	2,118 12 3	4	67,407 2 11	126 0 0	10 8 0
Coorg	6	3,295	60	31	9	354,842 0 9	3,778 9 9	2	358,620 10 6	108 13 5	9 1 1
Mysore	4	704	32	61	7	88,874 12 3	7,783 10 9	2	96,658 7 0	137 4 9	11 7 1
Total ..	117	88,716				10,774,002 9 8	96,130 2 8	46	10,870,132 12 4	122 8 5	10 3 4

NOTE 1.—The number of workers includes men, women and children. Wage bills were not available separately for men, women and children. The average earnings, therefore, represent the average for men, women and children. The inclusion of children's wages has, no doubt, lowered the average, but the lowering is not appreciable as the number of children employed is very small.

NOTE 2.—The total wage bills were called for month by month and the figures supplied were for 12 months. The plantation worker does not, however, work for 12 months in the year. The average earnings per worker per year given in the table is, therefore, higher than the actual earnings. The monthly earnings given in the last column would be about the correct figure.

The best periods for earning wages by piece work are the periods of heavy crop production. In most tea areas this is from April to June and from September to November, but varies slightly in the Nilgiris. In coffee the crop period lasts from November to March and some extra pay is earned in the spraying seasons of April—May and September—October. In rubber tapping gives the highest yields in October—December.

Wages in Small Holdings.

In small holdings under coffee and rubber, none of the concessions mentioned above is generally paid. A consolidated wage is the general rule. Small coffee estates employ labourers to any appreciable extent only in the picking season as they depend largely on local labour. The wages paid are from 10 to 12 annas if on daily rates and up to Rs. 1|4|- per bushel if on piece rates.

Rubber tapping in small holdings is also carried on mostly by local labour. The tappers are employed in nearly all small estates on a daily basis. The wages are from 12 annas to Re. 1 and sometimes even up to Rs. 1|4|-. The task is generally higher in the smaller estates being up to 400 to 450 trees, but it is not related to the yield.

Settlement of wages.

The basis of the whole system of wage payment is the checkroll. A checkroll begins with columns for each day of the month. In these columns is noted whether the labourer was on daily wages or on plucking or similar piece work. The number of days on which he worked on daily wages is noted as well as the number of pounds plucked each day and the total pounds plucked each month. This figure of total pounds plucked is multiplied by the piece rate and added to the daily wage multiplied by the number of days worked. The total gives the labourer's earnings for the month. From this are deducted the price of rice issued and the amount of *selavu* cash paid weekly ; advances are then added or deducted and the balance due for the month struck.

Selavu cash.

In addition to issuing rice and other food grains to the workers, all estates on the annual payment of wages system also give to workers every week a small cash advance known as *selavu* or *kurchoo* to meet the normal weekly expenses of the worker over purchase of dal, chillies, salt etc., the amount being usually dependent on the number of days worked. In pre-war days the amount given was generally 6 annas for men, 4 annas for women and 2 to 3 annas for children. It frequently happened that the *selavu* cash was not sufficient for the expenses of the worker especially as most of the estates issued it only in proportion to the number of days worked during the week, and many workers were forced to borrow from their kanganies or the shop keepers on the estate. At present over and above the rice and other grains supplied, a *selavu* advance of 8 annas for men, 6 annas for women and 4 annas for children is issued. In some estates the advance even for men is only 6 annas. Besides, payment of the dear provision allowance is also made every week although some estates credit it in the checkroll and pay it at the time of settlement. In some estates the war outturn bonus is given every week whilst in others it is given every month. Only in the Anamallais is outturn bonus given at the end of the year. It means that the workers at present get a total of Re. 1 to Rs. 1|8|- per week for their normal weekly requirements.

The *selavu* expenses are not generally paid direct into the hands of the workers. They are paid to the kangany in all estates and he distributes it among the workers in his gang. It was a general practice some ten years ago to issue credit slips on the shop in lieu of the weekly cash. This system was open to abuse in as much as the workers lost the power of free bargaining. A small number of estates even now continue this practice. Moreover, the kanganies in whose hands weekly expenses cash is given in a lump sum do not always distribute it among the workers but frequently have an arrangement with the shop keeper to issue articles to each worker to the extent of the *selavu* amount.

Systems of Payment.

There are three systems of settlement in the plantations :

(1) *The annual settlement system.*—The annual settlement of wages is the common practice in the plantations. Under this system the labourer is credited with his weekly earnings, debited with the cost of rice and *selavu* advances and his balance is carried forward for disbursement after clearing his dues to the maistry at the end of 10 months, which is generally the employment period. It is said that the labourers are free to draw from their balances any time, but if this is really so, it is not understood why *selavu* advances are given only in proportion to the number of days worked. In some estates complaint was also made by labourers that they found great difficulty in obtaining advances from their credit balances and were, therefore, forced to borrow. Under this system the balances at the time of settlement are paid direct into the hands of the workers in nearly all the tea estates. In coffee and rubber estates the balances are paid in a lump sum to the kanganies or the labour suppliers along with a statement of the accounts of individual workers, and they distribute it among the workers in their gang. This practice should under no circumstances be allowed to continue and the wages of labourers should in all cases be paid direct into their own hands. It is stated that there is a variant of this system called the modified settlement system. Under this system the balance in favour of the worker is struck in the ordinary way at the end of each month and is read over to him in the presence of a European Assistant. He can take his whole dues or leave a portion with the estate. This modification was not noticed in any of the estates visited. The annual settlement system is the general rule.

(2) *Monthly settlement system.*—Monthly settlement of wages is done by a few estates. Even in them the system of issuing weekly *selavu* advances exists. Monthly settlement is more common in the Nilgiris than anywhere else. A few estates in the Wynaad also settle wages every month. Factory workers are always strictly paid on the monthly system everywhere.

(3) *Weekly settlement system.*—Only a few estates pay their workers weekly. Even in such estates, one day's wages are generally kept back for payment of debt due to the kangany at the end of the season.

For casual and local labour employed for general work, the weekly or the monthly settlement is the general rule. As already stated, such labour is employed in large numbers only in rubber estates.

In the sampled tea estates, out of 6 estates in South Travancore, yearly settlement was observed in 4 and monthly settlement in 2. In Central

Travancore, Munnar and the Anamallais, all the estates settled their labour yearly. In the Nilgiris out of 8 estates, 2 were settling yearly, 4 monthly, and 2 weekly. In the Wynaad out of 9 estates 7 had yearly settlement and 2 weekly settlement.

In the sampled rubber estates, out of 8 estates in South Travancore, 3 were having yearly settlement, 4 monthly settlement and 1 daily settlement. The estate where daily settlement is made is a small one comprising 34 acres. In Mundakayam and North Travancore all the estates were settling once a year. In Malabar 3 out of 4 settled once a year and the other one once a month. In Cochin the wage period is one month for resident labour and 10 days for non-resident labour.

In the sampled coffee estates, nearly all the estates in Mysore and Coorg have the yearly settlement system. In the Shevaroys most of the estates settle weekly. In the Nilgiris and the Wynaad a few estates pay weekly and others monthly or yearly.

Should the Annual Settlement System Continue ?

The most important reason urged in favour of the annual settlement system is that it encourages thrift. It is the only means of ensuring that the workers get a lump sum. But for this system, it is argued, the worker would never be able to get to his home in the plains. The United Planters' Association of Southern India in its reply states : " At present there is no other way that commends itself to the labourer for securing his savings. The use of banks rests on a trust in that type of organisation which is not by any means universally accorded to them by people of much more advanced standards than the South Indian estate labourer. On the whole, the estate labourer trusts the estate and this trust is an asset which the industry has been at great pains to preserve. It will be a very considerable time before the estate labour will show the same trust in any other body to care for its savings." The Association further points out that " the management of money is not usually a natural instinct and that the regular short-term payment of wages in full is only going to be of advantage to the wage earner if he can visualise his needs for some time ahead and make arrangements to save the necessary funds to meet those needs. Labour varies considerably in its ability to manage its income, but a high proportion fails to visualise future needs and lacks the knowledge of how to save or where to put any savings which may be made. The result is either a limitation of working days or the wasting of cash income above that required for basic needs on minor comforts, with the inevitable result that expenditure on clothing or other major items can only be met by securing advances." This apologia in favour of the annual settlement system has been adequately dealt with in the G.O. of the Government of Madras referred to before. " The Government consider that labour should be gradually educated to stand on its own legs and to practise thrift for its own sake. Enforced thrift has but little moral value. The planters have wonderful opportunities to help to improve the moral tone of the labourers working under them. The Government consider that by paying wages every week or every fortnight they will help the workers to stand on their own legs..... The Government also consider that a uniform procedure should be adopted for disbursement of wages of workers in all estates. They consider that all payment of wages should be made in the immediate presence of the manager or some other responsible officer ".

Instead of dilating on the value of thrift and the proper means of saving, it would be worthwhile to study the real ability of the plantation workers to save and also to enquire to what extent the balances that appear in the check-rolls are savings proper. The plantation labourer is not a highly paid worker

and unless the whole family works he cannot afford to support it from his own earnings. Even with the earnings of his wife he seldom eats two square meals a day, especially if he has any dependent children. The incidence of sickness in plantation areas is high and often during periods of sickness he has to depend on the good offices of his kangany to see him through. The ability to save is not certainly much in his case.

In some of the estates included in the sample, detailed enquiries were made about the debts of a selected number of workers. It was invariably found that the workers were in debts either to the kangany or to the local shop-keeper nearly to the extent of, and in some cases more than, their credit balances in the checkroll at the time. The following are typical examples :—

Balance in checkroll	Debt to kangany	Debt to shop-keeper
Rs. A. P.	Rs. A. P.	Rs. A. P.
43 13 10	..	40 0 0
22 15 0	22 0 0	..
45 0 0	43 8 0	..
55 0 0	10 0 0	49 0 0
10 0 0	3 0 0	4 8 0
7 0 0	5 8 0	..
55 0 0	15 0 0	..
97 12 5	50 0 0	..

At the time of settlement almost all workers owe to the kangany amounts from 15 to 30 rupees and some may in addition owe varying amounts to the local shopkeeper which shows that whatever balances the workers have at their credit in the checkroll is often nearly offset by their liabilities to the kangany or the shop-keeper.

It cannot, however, be denied that the system of annual settlement results in comparatively more saving by restricting the workers' opportunities for spending. But only in the case of the thrifty workers does this represent real saving, the others being in debt. This, therefore, does not constitute an argument for the annual settlement system, as the really thrifty workers will save under any system of settlement. On the other hand, where monthly or weekly settlement of wages is in vogue, the workers were usually seen to be free from debts to the kangany or the shop-keeper. This, of course, is not always due to the workers not wanting to borrow but is due to the fear of the kangany or the shop-keeper that he may not be able to realise any large debts from them. Again, the workers settled every week or every month have more money in their hands from day to day and purchase better and more food. It also helps towards producing a settled labour force and a higher standard of living. The experience of the Superintendent of one estate in the Wynaad was that the health of the labourers had remarkably improved since the estate started weekly settlement of wages. After all, to live a healthy life is the main purpose of any employment ; ' saving ' should be thought of only after this is assured.

The defects of the annual system of wage payment are admirably summarised by the Whitley Commission as follows :—

> " The system of wage payment in South India has one advantage in that it enables workers to return to their homes with what must be to them a fairly substantial sum of money. It involves a saving of all surplus earnings, and it is no little credit to the planter that the worker places such complete confidence in him. On the other hand, the disadvantages in our view outweight the advantages. It tends both to tie

the worker to a particular estate, and to put an unnatural brake on that gradual adjustment of the plantation worker to a higher standard of living which the industry itself realises to be one of its greatest needs. Not only are the weekly payments small, but evidence was not lacking to show that in some cases the workers were compelled to take further advances from their maistry for wants which could not be met out of the weekly advance. Moreover, we believe, that the system of payment of wages in full to the worker at regular intervals, a system in force in all other plantation areas, would go far to break down the prevailing system of taking advances from the maistry at the time of recruitment. In view of their general indebtedness, few workers can resist the immediate offer of money in the hand or visualise the ultimate consequences to themselves of the ready acceptance of such offers. We feel, however, that any system of payment which, as we believe to be the case here, tends to encourage rather than discourage this habit is to be deprecated. Nor can we approve a method of payment which precludes the worker from sending home sums of money from time to time for the support of such dependents as do not accompany him to the plantation. In discussing indebtedness we have made recommendations relating to the regular and prompt payment of wages, the recovery of recruiting costs, including the cost of transit, and restrictions on the recovery of advances. These are intended also for application to plantation labour. They should of especial value in South Indian plantations in improving the independence, economic position and bargaining power of the workers."[1]

It must be stated, however, that a very large section of labour prefers the annual settlement. This is especially the case with the Tamil labourers who do not like the monthly settlement of wages even in factories. But the more advanced section of labour consisting of the Malayalam-speaking workers from Travancore, Cochin and Malabar is unanimous in clamouring for a weekly or monthly settlement. The annual settlement system is obviously intended to bind the labourers to the estate for the year. The earlier it is abolished the better. Every estate should settle the accounts of all the workers every month or every week and the balances should be handed over to the workers in full. If the workers so desire, they may deposit the whole or part of such balances with the estate, but the balances so deposited should be made available to the workers any time on demand. It may be worthwhile to devise a simple savings institution for the benefit of the plantation workers, with branches in all important centres where 2,000 or more workers live.

Prithee Thundus.

The plantation workers, being generally ignorant and illiterate, do not have any clear idea of their earnings and their balances. They cannot remember the number of days they have worked, the wages due to them or the advances they have received by way of rice and weekly cash. They depend solely on the sense of justice and fair play of their estates and their kanganies. There is, of ceurse, always the provision that they can obtain any information pertaining to these matters from the office where the checkroll is kept. But very seldom they do so as the office staff is rarely obliging and even when they seek to know their position from the checkroll, it is too complicated for them to understand anything.

In order to obviate this difficulty, the United Planters' Association recommended the issue of " Prithee Thundus ", *i.e.*, slips issued for the benefit of the workers. It suggested that " every labourer whose name appears in

[1] Report of the Royal Commission on Labour in India, pp. 401-402.

the estate checkroll should be issued each month with a printed account form showing his or her position in the checkroll as at the end of the preceding month. These 'prithee thundus' should be printed in vernacular and should disclose separately all debits and credits appearing in the relative line of the checkroll. The thundus should be initialled by the Manager of the estate concerned in certification of their correctness and they should be handed to each labourer severally and not to the kangany."

The usual practice, however, is to give such statements of accounts every month to the kangany for the labourers in his gang. Occasions are not rare when the kangany refuses to show the account to a worker and if he goes to the office the staff do not bother to explain his account but direct him to the kangany. Very often a worker desirous of seeing his position in the checkroll is driven from pillar to post until he becomes disgusted and quietly resigns to his fate. There are, however, a few estates which issue statements of accounts directly to each worker, and in some estates in the Kanan Devans and the Anamallais different coloured slips are used according to whether the account is in credit or debit. Formerly the labourers were usually mustered monthly before the Superintendent and their accounts were orally explained to them. Objections, if any, were heard and cleared up on the spot. This system is not now in vogue due to shortage of assistants in war time. In some tea estates, however, the accounts of individual labourers are still read and explained to them at regular intervals. In rubber and coffee estates the statement of accounts is given only once a year at the time of final settlement and that too not direct to the workers but to the kanganies.

Balances at the time of Settlement.

Generally the Tamil labourers in tea estates have balances of over Rs. 40 at the time of settlement. The Malayalee labourers in South and Central Travancore have only from 15 to 20 rupees at settlement but this is partly due to the fact that all Malayalee workers take large advances from their credit in the month of August for the Onam festival.

In rubber estates the balances at settlement time are, on an average, between Rs. 20 and Rs. 30 for the tappers. In coffee the balances are only Rs. 15 to Rs. 20 and very often the way expenses given are the only balances for the workers.

Standard of Living.

Although no enquiry was made in detail into the standard of living of the workers, sufficient material was collected by visiting their quarters and studying their mode of living and their clothing, etc., to warrant a brief description of their standard of living. The plantation workers are provided with free housing accommodation and the dirty state in which the houses are kept gives a first impression of their extreme poverty. The workers have no furniture of any sort. The cooking utensils used are earthenware and are of the cheapest variety. Brass or copper vessels are found in the houses of the maistries and only exceptionally in the houses of the workers. Women workers were seen wearing only beads and glass bangles and very few of them had any jewellery.

Nearly all the workers in South Indian plantations have rice as their staple food. Boiled rice with a little dal and occasionally a little vegetable forms the chief diet. The majority of workers feed only twice a day. In the evening after returning from work they prepare rice and eat it and what is left over is put in cold water to serve as their morning meal before they go out for work. Very few workers take any food at mid-day. Some, however, boil

tea and drink it without milk or sugar. Milk, ghee and sugar do not form part of the diet of the workers. Fish and meat are indulged in on rare occasions.

The clothing of the men workers consist of a dhoti and a small towel. Shirts are only for the maistries. There is no arrangement for washing and the workers look very dirty in their soiled garments. Women have a cheap sari and many women have but one sari to last them for the year. The cumbly supplied by tea estates serves the workers as protection against cold at night, outdoor garment by day and waterproof during rainy weather.

All this indicates the very low standard of living of the plantation workers and their poverty is further emphasized by their indebtedness. Nearly all the workers are in debts to the maistry, the local shop-keeper or to any other person who cares to advance money. The indebtedness of the workers is more pronounced in Coorg and Mysore where many of the workers have debts outstanding to the maistry for 10 to 15 years and in amounts ranging from Rs. 50 to Rs. 300. No interest is generally charged by the maistries. A maistry's interest on loans to labourers is covered by the commission he earns on their wages, and the shop-keepers who also do not charge interest probably make up for it by charging higher prices. The amount of debt is not high and exorbitant interest which leads to the accumulation of debts is entirely absent. Professional money lenders are not as far as possible allowed to enter estates.

Drinking and Gambling.

The evils of drinking and gambling are not greatly prevalent in the plantations. Most of the estates are far removed from villages and the liquor shop is not encouraged on the precincts or in the vicinity of the estates. There is no toddy shop in the whole of the Anamallais which has over 30,000 acres under plantation. However, the Tamil labourer is happy if he is occasionally able to drown his sorrows in a pot of toddy. The Canarese worker is a born gambler and but for the limited opportunities he gets in plantations he would have given full vent to his gambling spirit. At present the only outlet he has is the cock-fight on which he is very keen.

Hours of Work.

The hours of work in tea and coffee estates are normally 8 to 9. Those workers who are given a set task can leave the field when the task is finished irrespective of the hours worked. The actual work in the field starts at 7-30 or 8 in the morning and finishes by 5-30 or 6 in the evening.

The workers have to attend both the morning and the evening musters. The morning muster is generally called at 7 or 7-30 when the workers have to line up at the muster ground where the Superintendent or the head conductor marks them present. In the evening again after they leave work they have to report for evening muster where they have to hand in all tools and implements and their names are entered in the checkroll for the day's work. The evening muster takes from half to one hour and the morning muster half an hour. The 8 to 9 hours worked by the labourers are exclusive of the time they have to spend in attending muster. For purposes of hours of work, the working day should be reckoned from the time they are first called for muster to the time when they leave after the evening muster. The pluckers in tea estates do not have to attend the evening muster, but they have to take the leaf to the factory for weighment which frequently keeps them till 7 in the evening.

In many estates even though the regular working hours are from 7-30 a.m. to 5-30 p.m., the workers are let off in the evening only much later. In

two estates it was noticed that the gong signal for stopping work was given at 7 p. m. even though they had given in their reply 5-30 p. m. as the end of the working day. While going about in the plantation districts many workers were seen still at work at 7 p.m. Those who work on the masitries' contracts invariably work for longer hours.

As a general rule all estates have a mid-day interval for one hour. But it was almost a univeral complaint by the workers that they were not allowed to enjoy the interval. In many estates no worker, except a nursing mother, is allowed to return to the lines. They are, however, given 5 to 10 minutes for a hasty meal if they have brought anything to eat with them. Instances are many where the workers's wage for the day is forfeited for the sole reason of his having gone to his line during the so-called mid-day interval.

The hours of work in the field should be regulated and an hour's interval should be enforced. A gong or a horn should be sounded at the commencement and the close of the recess as also at the time when work is to cease.

The tappers in rubber estates have to start by 6 o'clock in the morning and the hours of work are variable and dependent on the weather and on the response of the rubber trees to tapping. Usually work is over by 1 or 2 p. m.

The hours for factory workers are in accordance with the provisions of the Factories Act.

Holidays.

In plantations work is now normally available for six days in a week and the remaining day, either Sunday or the weekly *shandy* (bazaar) day, is a holiday. In periods when there is rush of work, the labourers may even be asked to work for seven days. Rubber tapping is done every day and tappers work all the seven days in the week. As a general rule there are no paid holidays, though a few estates give a paid holiday at Christmas.

HOUSING AND SANITATION.

Existing Facilities.

Free housing is provided for all workers other than casual and local labourers. The type of housing varies from district to district and from estate to estate. Usually a room 10 ft. × 12 ft. is provided for 4 to 5 workers. The room serves for living, sleeping, storage of food and fuel, etc. Many rooms built during the last 10 years have a separate kitchen and in some estates a kitchen has been added to old rooms. The rooms are built in lines or blocks, each block consisting of 5 to 10 rooms.

The lines in tea estates are generally better than in coffee or rubber estates. For example, most of the recently built lines in the Kanan Devans, the Anamallais and the Wynaad have living rooms 10 ft. × 12 ft., a kitchen 12 ft. × 6 ft. and a front verandah 12 ft. × 5 ft. In the Kanan Devans the lines are generally in blocks of 5 rooms. The walls are of brick or of broken rubble with mortar or cement or of granite with cement. The plinths are generally 12 to 18 inches high. Two windows and two doors, one each for the living room and the kitchen are provided. Sometimes a dwarf wall is built in front of the verandah to keep out heavy showers. The roof is of asbestos or corrugated iron sheets or tiles. Smoke-vents on the ridges of the roofs, smoke or 'cowl' tiles and in some cases chimneys are provided to let out smoke. The newly built lines have concrete 'aprons', 7 feet wide, sloping from the base of the tenement and ending in a concrete drain running round the house. In some cases the apron is of broken rubble which leaves crevices in between that gather dirt and mud. In many cases, 'gutterings' of corrugated iron are

fixed to the eaves. At each end of the lines is an enclosed bathroom, one for males and one for females. Most of the old type lines have also kitchens and provide windows and smoke-vents. In the Anamallais there are many rooms of the Kanan Devans type. The English and Scottish Joint Co-operative Wholesale Society has a very progressive type of housing for its labour. In the Anamallais and Wynaad it has built a good number of blocks of 2, 3, and 4 rooms apiece. The walls are of rubble and concrete or of concrete bricks either insulated or solid. The rooms are 10 ft. × 12 ft. A front verandah 12 ft. × 5 ft. with a dwarf and sometimes a high wall, and kitchen 12 ft. × 7 ft. are provided. The rooms are well ventilated with doors and windows and ventilators over the doors. The walls are high and built-in chimneys lead out the smoke. Aprons and concrete drains are provided. The plinths are 18 in. to 24 in. high and the roofing is of tile. Each quarter has a separate bathroom behind the kitchen. It is built with concrete walls 7 feet high without roof and is an innovation in plantation housing. The older types of houses in the Anamallais and the Wynaad, however, are in a sorry mess. Kitchens are not separately provided and the doors and windows are low and narrow. Plinths are very high and verandahs very narrow. Roof may be of tiles or of corrugated iron. Walls are low and partition between rooms is with wooden planks, or corrugated iron sheets.

In Central Travancore and the Nilgiris the housing in European-owned estates is better than in Indian-owned, though there is nothing to compare with the progressive types of houses in the Kanan Devans or the Anamallais. They provide lines of from 5 to 7 rooms each, and each room consists of a front verandah, a living room 10 ft. × 12 ft. or 10 ft. × 10 ft. and a kitchen 10 ft. × 7 ft. or 12 ft. × 7 ft. Doors and windows are also provided. Apron paving, drains, gutterings, dwarf-walls, bathrooms, etc., are absent. Rarely are chimneys provided but invariably all estates provide cowl tiles and glass tiles. In many of the Indian-owned estates in the two districts housing leaves much to be desired. In some estates back-to-back lines with low walls of mud and rooms of 8 ft. × 10 ft. are still used as living quarters. Windows are absent and the floor is uneven with pits and holes. In some cases walls are of bamboo matting. Drains are not properly maintained.

In Mundakayam which is a predominently rubber area, the housing conditions are similar to those described in Central Travancore as far as the larger estates are concerned. There is, however, one estate, namely, Yendayar that is well in advance of others. A large number of its lines are in blocks of two rooms. The rooms are 12 ft. × 12 ft. or 12 ft. × 10 ft. Behind the living room is a kitchen 7 ft. × 7 ft. and a bathroom 7 ft. × 5 ft. separated from the kitchen by a dwarf wall 2 feet high. At the corner junction of the kitchen and the bathroom is a sink and an outlet for water. The doors and windows are large and let in sufficient light and air. Shelves built in the walls in the living room and the kitchen come in very handy for the workers to keep clothes, utensils, etc. But in smaller estates, mostly Indian-owned, employing from 10 to 15 workers, the lines are often thatched sheds with walls of grass. No separate kitchen is provided and sometimes repairs of the house are the responsibility of the workers themselves who are mostly local people.

In Malabar the lines consist of smaller rooms without kitchen as most of the workers in the rubber estates live single. The walls are of mud or bricks and the roof is tiled.

The houses recently built in the Kadamane Tea Estate belonging to the Tea Estates, India, Limited, in Mysore are quite decent. They are built in blocks of two and the blocks are built at a distance of about 100 feet from one another.

It is in coffee estates that the worst types of quarters for labourers are found. In the Shevaroys, Coorg and Mysore the labourers are housed worse than cattle. Back-to-back barrack lines built 40 to 50 years ago are still used to house the workers. The rooms are small 10 ft. × 10 ft. or 10 ft. × 8 ft. Verandahs are absent in many cases and plinths are very high. It appears that the earth around the foundation has been washed away by rain and the room stands on a dilapidated foundation. The walls are of mud and are full of holes and crevices which proclaim that they have not seen repairs for years. The doors are very low and narrow. The height of the door is only 4 to 4½ feet and the workers have to bend very low in order to enter the room. The roof falls still lower on either side. The rooms are partitioned by a low wall 5 feet high built between the rooms. In rainy weather especially, the dampness makes the walls sodden and living in such rooms is not only unhealthy and unhygienic but is also even a danger to life and limb because there is no knowing when the whole structure will give way and bury the inmates in the debris. Some of the quarters in Coorg and Mysore are still worse. They have walls of old flattened tin sheets or of grass or bamboo plastered over with mud. A separate kitchen and a front verandah are exceptions in the Shevaroys, Coorg and Mysore. It is a pity that the planters in Mysore and Coorg still think that the houses for the workers are good enough and do not contemplate the construction of better types of houses. However, in Coorg, the Consolidated Coffee Estates has launched a new building programme for housing its workers and a few blocks of lines of two rooms each have been built since 1943 in many of its estates. The houses consist of a verandah, a living room and a kitchen, are built of brick and mortar and have tiled roof. Doors and windows are provided, though not bathrooms. Even in the new type of houses the floor is *kutcha* as cement floor is said to be not popular with the workers.

Formerly houses were usually built near streams for easy access to water and this was responsible for a considerable incidence of malaria among the labourers. The policy has now been changed and houses are now generally built on higher elevation which, among other things, has led to a considerable decrease in malaria.

In the Nilgiris, parts of the Wynaad and Coorg, one comes across grass huts where the local tribes, *e.g.*, Kurbas, Yeravahs and Todas live. They cannot be induced to move into regular lines built for workers, but prefer to live in their huts. "The villages of the Kurumbas on the Nilgiri Hills are called Mottas. They consist generally of only four or five huts, made of mud and wattle with thatched roofs. The front of the house is sometimes whitewashed and ornamented with rude drawings of men and animals in red earth or charcoal."[1]

Overcrowding in Houses.

Overcrowding is the most serious problem in the housing of plantation workers. Even according to the planters themselves, the average accommodation provided is one room for 4½ to 5 workers. The accommodation is shared by their dependents also. In many cases the number of persons in each room is 8 to 10 and sometimes up to 14. In some cases it was noticed that the maistries had taken a little more accommodation for themselves which led to still more congestion in the remaining rooms in the line. In the new type of lines built with separate kitchen, the purpose for which the kitchen is provided is defeated by allocating the kitchen and the living room separately to two families. In all the estates seen in South India, there is not a single instance

[1] E. Thurston, Castes and Tribes of Southern India, Vol. IV, p. 166.

where the worker and his family is allotted both the living room and the kitchen. Occasionally maistries get this benefit. In the Kanan Devans and the Anamallais usually the kitchen is allotted to one family and the living room to two families. Two to three fire-places in the living room is a common sight. The living room is sometimes divided by improvised partitions by the workers themselves for the sake of a little privacy for the different families occupying the same room. Parents, husbands, wives, grown-up children and little ones sleep all huddled together in the little space of the 10 ft. × 12 ft. living room. In other areas also it is not infrequently that two different families or one family and single members absolutely unconnected with it stay together in the same room. Living together in almost what may be termed promiscuity has a blighting effect on the morality of labour. The Hon'ble Minister for Agriculture, Madras, who visited the Anamallais in 1938 observed in this connection as follows : " Overcrowding must be stopped and it should be made a rule that not more than one family should be accommodated in a single tenement. Even while so doing the size of the family should be taken into consideration in fixing the number of rooms and in cases where the family consists of more than one married couple they should be given definite separate accommodation." As the recruitment is on a family basis, it is necessary that each family should have an independent quarter and where the family consists of more than two children in addition to the parents, the quarters should have two living rooms.

Types of Houses to be Prescribed.

The Royal Commission recommended that standard minimum requirements in regard to plinth, floor, cubic space, light and ventilation should be prescribed by a competent authority which should have the power to condemn insanitary houses and that standard type plans to suit varying conditions should also be prepared and made available to garden managements. But Government have not as yet laid down any standards in respect of housing and many planters urged this as a reason for not going ahead with new constructions. They said that they would welcome legislation on this subject and were a little diffident about launching big building programmes lest their money should be wasted if Government later were to prescribe different specifications, as happened in Ceylon.

Under the rules framed in 1937 by the Cochin Government, the Director of Public Health is empowered to condemn immediately any building which, in his opinion, is insanitary and unfit for human habitation. The drawing up of standard minimum housing requirements within two years was also mentioned, although it does not appear to have been done so far.

Opinion differs as to whether labour quarters should be built in colonies or scattered about on the estates. Houses built in a colony are amenable to better sanitary control and supervision. This also facilitates welfare work such as schools, creches, organisation of sport, recreation, etc., while if houses are built separately and are scattered, it prevents spread of epidemics and is generally more healthy. The labourers themselves certainly prefer the colony system.

Four plans of houses are given in the United Planters' Association of Southern India Standards but it is understood that they were condemned by the All-India Institute of Hygiene and Public Health. All of them, possibly with the exception of one, have only one living room. Such houses are almost always overcrowded and deteriorate into a slum. If any one falls ill there is no way of isolating the patient. There is no doubt that such houses do not come up to the minimum standards of accommodation according to modern conceptions and do not provide the privacy necessary for a family with adult members.

During my tour, it was suggested by many district associations that it would help them considerably if designs for labour quarters suitable for South Indian plantations could be given in my report. I discussed the question with Mr. G. M. McKelvie. I.S.E., Consulting Engineer to the Government of India (Roads) and two designs of quarters and a plan showing detail of fireplace flue and chimney prepared by him are attached. They will suit all elevations and climatic conditions met with in South India. The designs show a block of two units which is much better than barrack houses. The main difference between Type A and Type B is that the former provides two living rooms whereas the latter is a single-room quarter with separate sleeping accommodation for children. These types are not much different from the advanced housing seen in some estates in South India and they provide, at a very little extra cost, the following amenities not generally found in the four designs included in the United Planters' Association of Southern India pamphlet :

(1) Separate sleeping accommodation for children in single-room quarters.

(2) Kitchen with simple fireplace, chimney, sink, and wall-shelves.

(3) High windows which ensure some privacy to occupants in crowded labour lines.

(4) Glass roof tiles to give light in kitchens and ventilation holes near roof.

(5) Reasonable drainage for sullage water.

(6) Rack for storing fuel in kitchens.

(7) Reasonably high plinths and firm floors.

(8) Screened-off bath rooms.

(9) Access from both front and rear of the quarters.

(10) Through ventilation.

(11) Sufficient daylight in all rooms.

(12) Wall shelves in all rooms. Doors open towards the nearer wall thus giving some privacy.

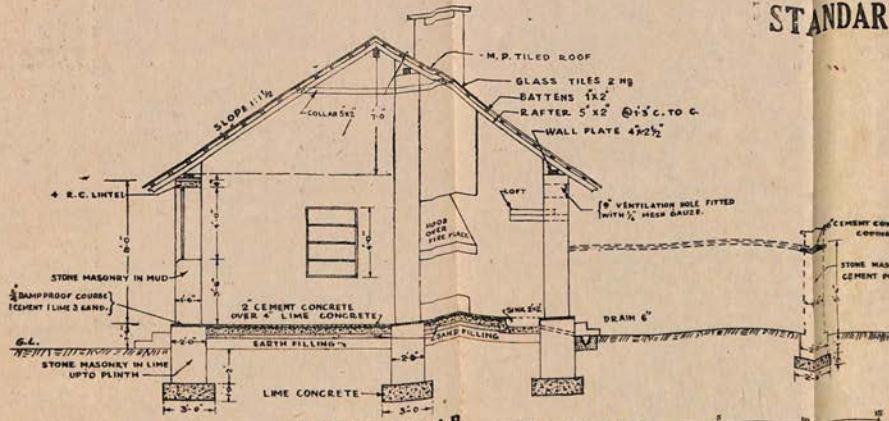
A pavement can be provided in front and at the rear of the quarters to suit local climatic conditions. It is desirable to provide a courtyard which, at a very small cost, will give sleeping space on hot nights and privacy to labourer's families. The cost of the A Type quarters will be roughly about 50 percent higher than that of the types given in the United Planters' Association of Southern India pamphlet, but in return the labourers will have about 100 percent more living space and many more amenities. The maintenance cost will also be somewhat less than that of the other types. The cost of the B Type will be a little less. Type A is recommended as it makes provision for two living rooms at an extra floor space of only 30 sq. ft.

	Stone walls	Brick walls
Type-A provides		
2 living rooms, floor area	208 sq. ft.	228 sq. ft.
1 kitchen, floor area	75 sq. ft.	80 sq. ft.
Front & rear Verandah	114 sq. ft.	114 sq. ft.
Total	397 sq. ft.	422 sq. ft.
Type -B provides		
1 living room, floor area	182 sq. ft.	200 sq. ft.
1 kitchen, floor area	84 sq. ft.	94 sq. ft.
Front & rear Verandah	101 sq. ft.	101 sq. ft.
Total	367 sq. ft.	395 sq. ft.

Specifications for these two types are given in Appendix XV as they might prove useful to Managers.

STANDARD LABOUR QUARTERS

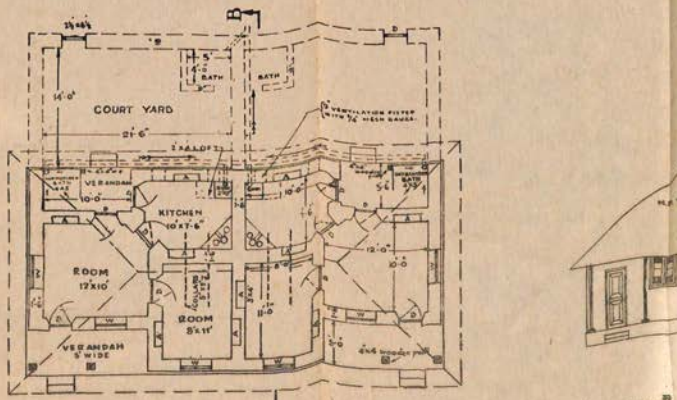
TYPE A

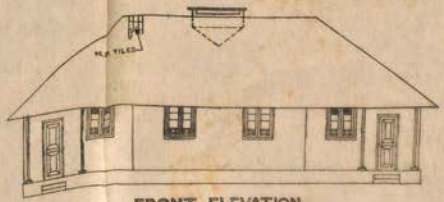


REFERENCE

D	DOORS PANELLED 10 NOS. 2'-6"x6'-6"
W	WINDOWS PANELLED & GLAZED 6 NOS. 3'-6"x4'-6"
A	OPEN SHELVES 10 NOS. 3'x4'
	DOTTED PORTION OPTIONAL

FLOOR AREA = 397 SQ. FEET PER UNIT.





FRONT ELEVATION

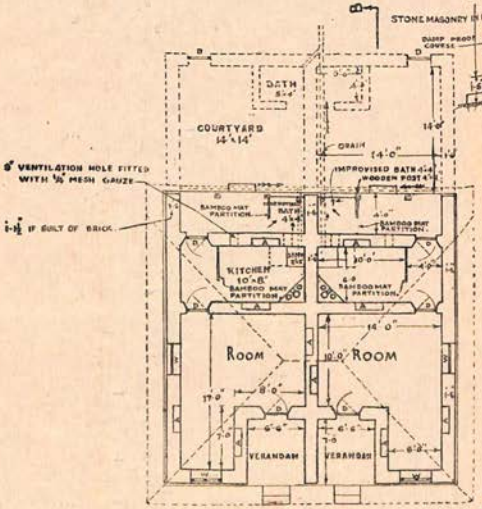
STANDARD LABOUR QUARTERS

TYPE B

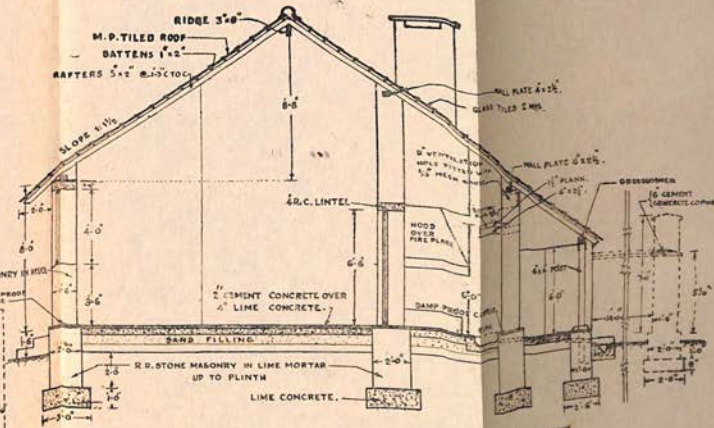
(2 UNITS)

REFERENCE

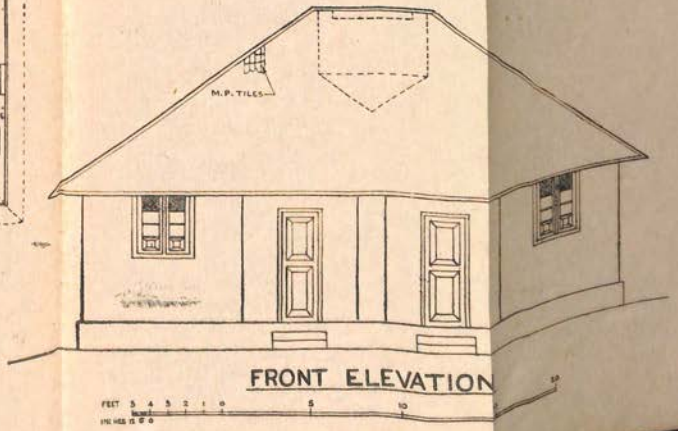
D..... DOORS 2'-6"x6'-6" – 6 NOS. PANELLED
W..... WINDOWS 3'-6"x4'-0" – 4 NOS. PANELLED & GLAZED
A..... OPEN SHELVES 3' x 4' – 10 NOS.
DOTTED PORTION OPTIONAL
FLOOR AREA = 367.5 SQ. FT PER UNIT



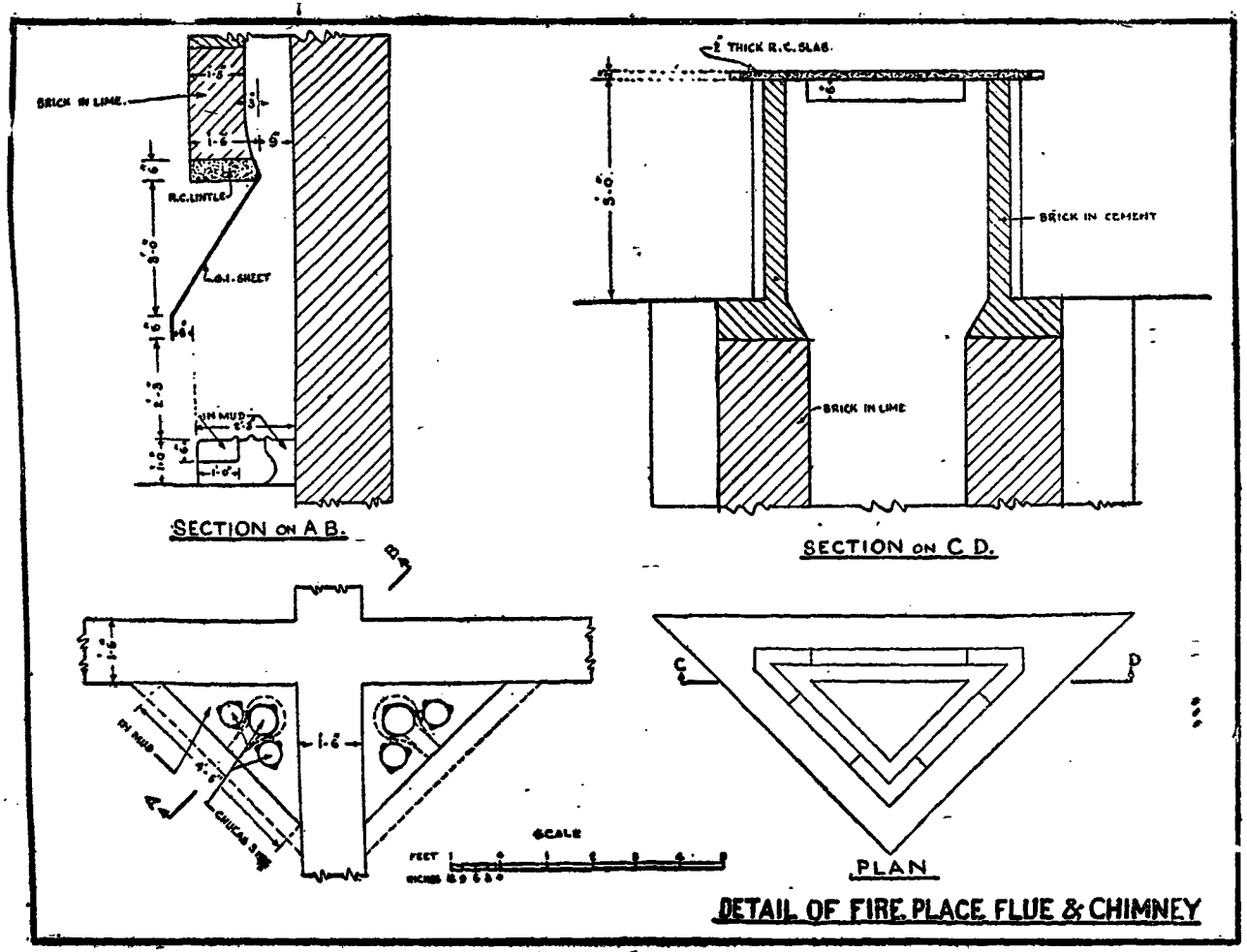
PLAN



SECTION ON A B



FRONT ELEVATION



DETAIL OF FIRE PLACE FLUE & CHIMNEY

Water Supply.

Most of the estates in the Kanan Devans and the Anamallais have water laid to the labourers' quarters through pipes. In Central Travancore, the Nilgiris and the Wynaad, some estates have piped water while others depend on wells or streams for their supply. The wells are not generally protected or provided with a pulley. In the Shevaroys, Coorg and Mysore, piped water supply is rarely found, the workers depending on wells and springs. A good protected water supply is essential for the health and welfare of the workers. At present, in many estates wells and springs which supply water are situated far from the workers' quarters. Good water should be available to the workers at a reasonable distance from the lines and the best method of assuring this would be to provide piped water. The United Planters' Association of Southern India recommendation in this respect is that "pure water should be provided within 150 yards of each set of lines, either in the form of a protected well with a pump, by aqueduct, or by pipes and taps."

Sanitation.

In the Kanan Devans, the Anamallais and the Nilgiris, all estates provide latrines for the use of the workers. They are generally of the bore-hole or the trench type. Usually two bore-hole latrines are provided for every block of 5 to 6 rooms, though in some estates one latrine is provided for every room in the line. The English and Scottish Joint Co-operative Wholesale Society has recently introduced in some of its estates the septic tank latrines. In Central Travancore and the Wynaad latrines are provided only in some estates. In South Travancore, Mundakayam, Thodupuzha, Cochin, Malabar, the Palni Hills, the Shevaroys, Coorg and Mysore, latrines are not generally provided.

Many planters argue that it is very difficult to get the labourers to use latrines even if they are provided. But the experience of planters in the Kanan Devans, the Anamallais and the Nilgiris is that the labourers can be educated in the habit of using latrines and, in fact, at present in these districts the large majority of the workers do use them. The myth that labourers do not use latrines is exploded long ago as was admitted by one district Association.

Though all the estates provide sweepers for the latrines, in many cases the latrines are dirty and not properly cleaned, and it is no wonder the workers prefer open spaces to them. Many latrines that were inspected during the course of the present survey were not swept or cleaned for months together and many bore-hole latrines were filled up but were not re-bored.

The bore-hole latrine, one for every family, can be easily introduced in all estates because of its cheapness. Where it is not possible to have it owing to high water level, friability of land, etc., septic tanks should be built. This question was also discussed with Mr. McKelvie who has kindly supplied a design (Illustration 12) of septic latrine blocks suitable for plantations. These latrines can always be kept perfectly clean and require very little attention from a sweeper beyond swilling out each pan once every morning and evening with about four gallons of water each time. From 10 to 15 users per pan may be allowed. The septic tanks will function for 15 to 20 years without attention and then can be made fit for use again by the simple process of removing sediment from the bottom of the tanks through the manholes provided. Brief specifications are given in Appendix XVI. In constructing the septic tanks the essential specifications should be rigidly followed. The tanks themselves must be reasonably air-tight but the drains must be so near the surface that aerobic bacteria can live in them. The tanks must never be allowed to go dry.

No latrines are provided in the fields anywhere, but as the labourers spend most of their day time in field work it is desirable to have latrines at

suitable places in the fields, as the control of hook-worm infection which is rampant in the plantations requires the eradication of any possibility of contact of faeces with the bare feet of labourers.

HEALTH AND WELFARE.

The health and physique of the plantation workers is none too good. The change of climate and environment in the hills is at first trying to the recruits who generally come from the plains. Malaria claimed a heavy toll in earlier days, but recently in many districts the disease has been brought under control by a systematic compaign by the planters. It is true that the environments of health and hygiene in the recruiting villages are worse than in the plantations, poverty, squalor and ill-health being the common lot of the villager. The Royal Commission mentions the existence of a special officer, known as the Planters' Districts Health Officer, in the Madras Province to advise on health work on plantations as it was found that the regular officers' manifold duties precluded them from giving sufficient attention to the plantations.[1] This post was, however, abolished in 1931 as a measure of retrenchment. The estates in the Madras Province are, however, visited by the District Health Officers deaths are recorded by the village headman.

Birth and Death Rates.

No duty is laid on the estates to maintain birth and death registers though this was recommended by the Royal Commission. But most of the estates keep these registers. In Cochin State, births and deaths are recorded by the Forest Department to whom information is sent by the estates within 24 hours. In the Shevaroys where the plantations are of small size, births and death are recorded by the village headman.

Statistics of births and deaths were available from many estates and are tabulated below :—

TABLE 105

Birth and Death rates in South Indian Plantations in 1942 *and* 1943.

(Per thousand population).

District	Total population*	1942				1943			
		Births	Rate	Deaths	Rate	Births	Rate	Deaths	Rate
South Travancore	7,689	228	29·6	54	7·0	238	30·9	77	10·0
Central Travancore	27,578	973	35·3	486	17·6	911	33·0	796	28·8
Munnar	47,711	2,301	48·2	311	6·5	1,948	40·8	261	5·5
Anamallais ..	21,804	496	22·8	298	13·7	572	26·2	346	15·9
Nilgiris	11,961	391	32·7	206	17·2	327	27·4	183	15·3
Wynaad	18,475	707	38·3	470	25·4	629	34·0	495	26·7
Malabar	454	..	..	..	..	15	33·0	9	19·8
Coorg	5,585	132	23·6	99	17·7	154	27·3	136	24·3
Total ..	141,257	5,228	37·0	1,924	13·6	4,794	33·9	2,303	16·3

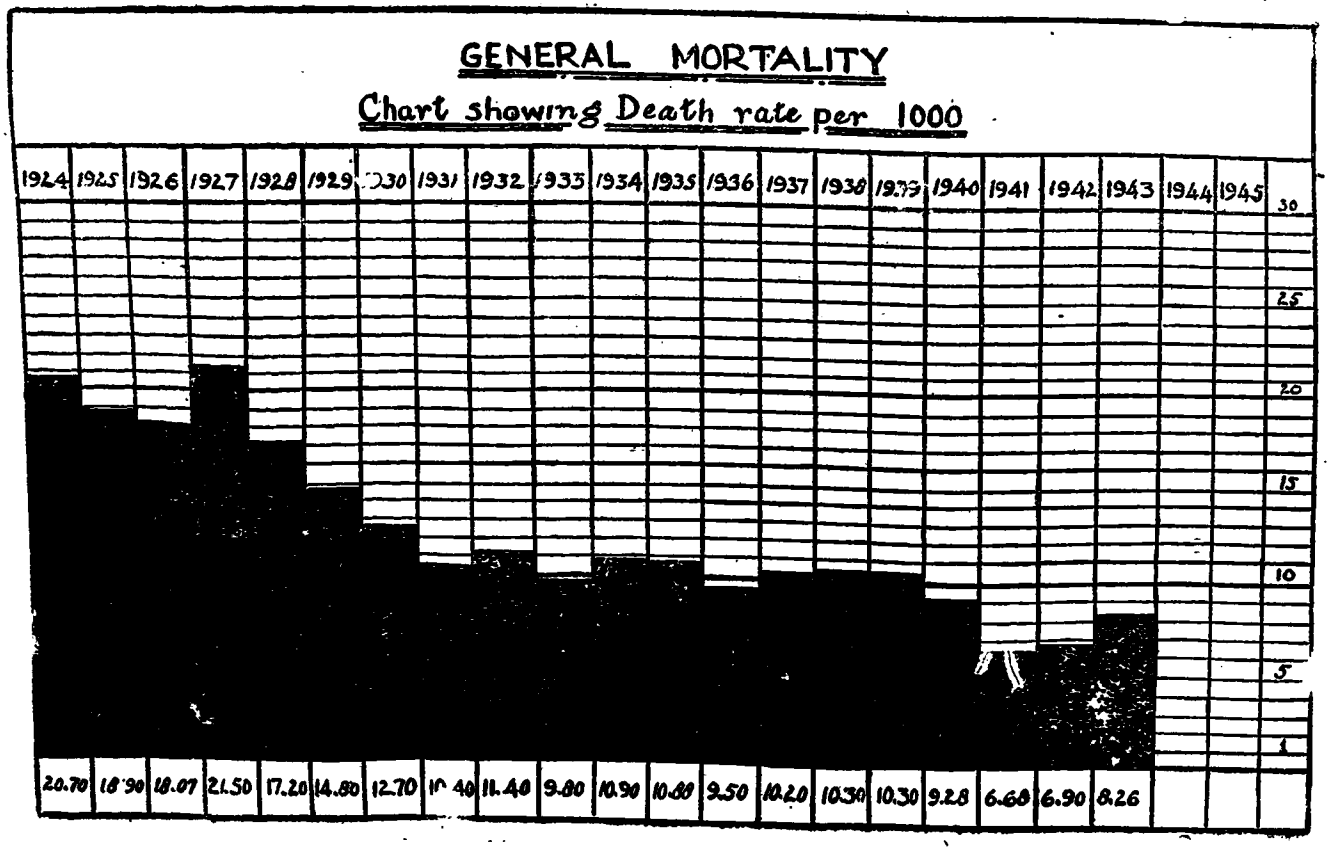
* The figures are not of the total population of the districts but of the population to which birth and death figures relate.

The Kanan Devan Hills Produce Company in Travancore which employs about 40,000 workers has maintained statistics of general and infantile mortality in its estates for the last 20 years. The general mortality rate has fallen from 20.70 in 1924 to 8.26 in 1943 per 1,000 population. The infantile mortality shows a decline from 26 per cent. in 1921 to 8.7 per cent. in 1943.

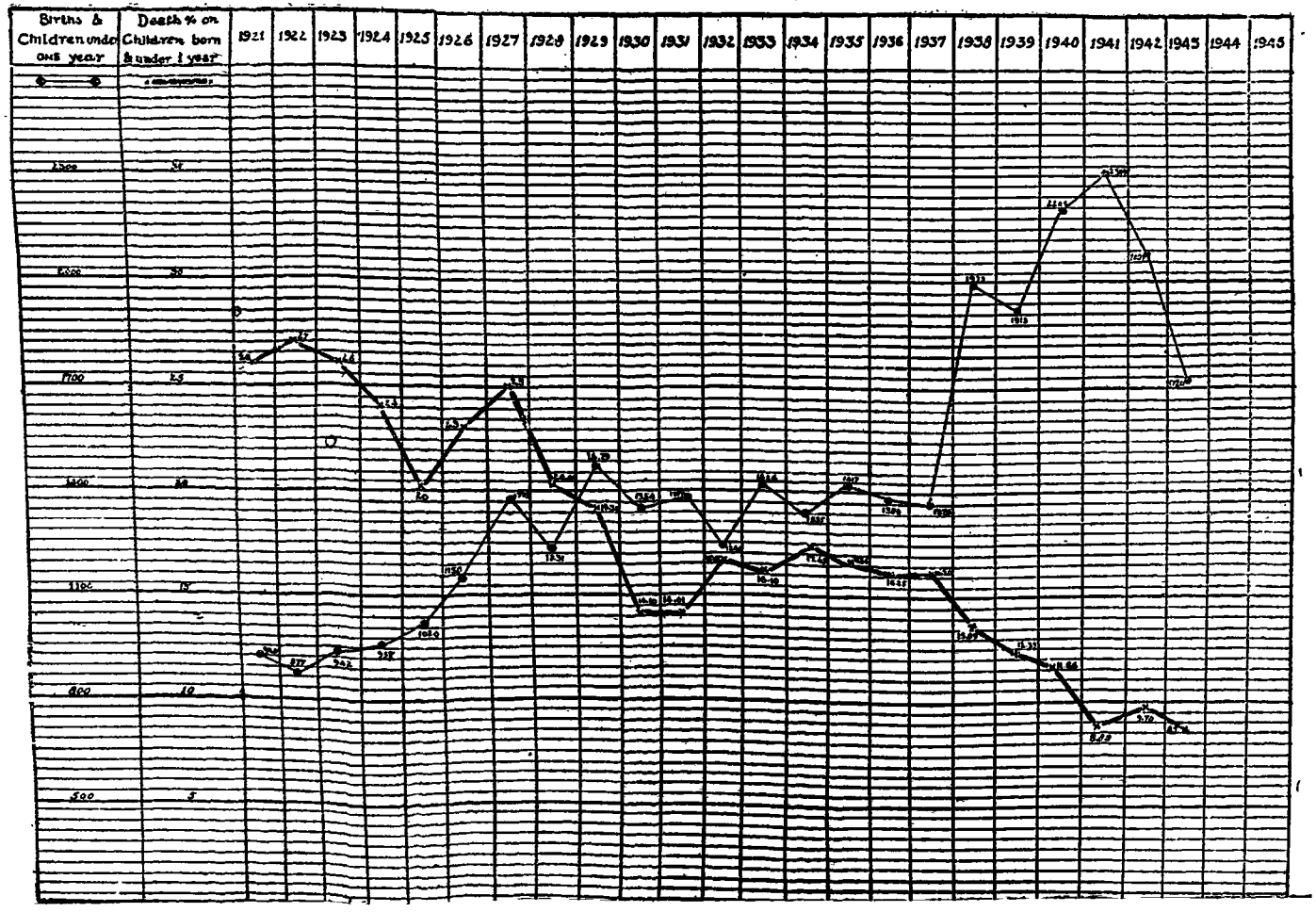
[1] Report of the Royal Commission on Labour in India, p. 417.

GENERAL MORTALITY

Chart showing Death rate per 1000



INFANTILE MORTALITY CHART



The Royal Commission has remarked that, generally speaking, death and infantile mortality rates of plantation populations are considerably lower than the corresponding rates in respective provinces as a whole.[1] But apart from better hygienic conditions and medical facilities, there is a special reason for the lower death rate in plantations. It is generally the healthy people who come to work in plantations, the old and infirm remaining behind in their villages. Again, a plantation worker after spending the hey day of his life in the hills retires and spends its evening in his home village. The most vulnerable group of old and infirm people, therefore, do not enter into the computation of the death rate in plantations.

Medical Aid.

The workers in South Indian plantations are given the benefit of free medical aid. But the kind of aid varies widely from a few drugs dispensed by the Manager or a clerk to careful hospitalisation and specialist attention.

The Kanan Devan Hills Produce Company has got a remarkably efficient system of medical aid for its workers. Every estate has got a well-equipped dispensary, under the charge of an experienced compounder and, in some cases, of a qualified doctor, where treatment for minor ailments is given. All serious cases are treated in the Company's General Hospital which is fully equipped and up to date. In the General Hospital there are X-ray, Ophthalmic and Dental Departments. It was possible for the Company to have such a hospital as it has about 30,000 acres under tea in one area and employs about 40,000 workers.

The group hospital system in the Anamallais, the Wynaad, and Central Travancore is also commendable. In the Anamallais there are four group hospitals and the Wynaad and Central Travancore have three each. In every estate under a group hospital there are well-equipped dispensaries generally in charge of experienced compounders called apothecaries. The dispensaries may have two or three beds for emergency purposes. Usually four or more such estates maintain a group hospital under the charge of a qualified doctor assisted by mid-wives, nurses and other staff. The group hospitals have separate wards for males and females as also a separate maternity ward. In some cases isolation wards are also provided. In addition to looking after the patients in the group hospital, the group doctor visits component estates once or twice a week, gives directions to the apothecary for treatment of minor ailments of the workers, examines serious cases and, if necessary, removes them to the group hospital. In one group hospital, there is also a lady doctor to assist the group medical officer.

In the Nilgiris and Malabar only very few estates have dispensaries, let alone hospitals. But in both these districts, Government hospitals and dispensaries are available within easy reach of the estates and the labour is sent to these local hospitals for treatment. Sometimes the Government doctor or a practitioner visits the estates periodically. In Central and South Travancore the larger tea estates have dispensaries under apothecaries and, in a few cases, under qualified doctors.

The large coffee estates in the Anamallais and the Wynaad have hospitals in charge of qualified doctors. In the Nilgiris only one estate has a dispensary. The Consolidated Coffee Estates in Coorg has a Central Dispensary at Polibetta and four dispensaries in charge of compounders in its component estates. The Mangle Brothers have a hospital at Suntikoppa but do not maintain dispensaries in most of their estates. Only very few Indian planters have dispensaries in Coorg. In Mysore dispensaries are very uncommon. In Madura and the Shevaroys no estate has provided even a dispensary. It

[1]Report of the Royal Commission on Labour in India, p. 405.

is a usual practice, however, in most coffee estates to keep a stock of quinine and some tinctures for first aid and dispensing is done either by the Manager himself or by one of the subordinate staff.

In rubber estates generally there are no dispensaries, but invariably every estate has some arrangement either with the doctor in the Government hospital or some private practioner to render medical attention to the estate labour.

The following table summarises the expenditure incurred in some of the sampled estates on account of medicines, etc.

TABLE 106

Medical expenses in some South Indian Plantations, 1943-44.

District	Area to which expenditure refers (acres)	Number of workers to which expenses refer	Expenditure	Expenditure per head of worker
			Rs. A. P.	Rs. A. P.
South Travancore	7,217	3,781	15,547 14 0	4 1 9
Mundakayam	16,445	6,763	33,302 10 0	4 14 9
Central Travancore	11,592	11,499	50,212 13 0	4 5 10
Anamallais	3,684	2,515	16,389 4 0	6 7 10
Nilgiris	4,352	2,702	12,137 13 0	4 7 10
Wynaad	6,124	5,781	49,422 1 0	8 8 9
Malabar	3,827	1,579	5,305 1 0	3 5 8
Shevaroys	505	263	342 10 0	1 4 10
Coorg	1,920	1,268	7,304 11 0	5 12 2
Mysore	8,466	4,655	14,552 0 0	3 2 0
Total ..	64,132	40,806	204,816 13 0	5 0 3

The average expenditure worked out per head of the workers in the last column of the above table may be compared with that worked out by the United Planters' Association from figures supplied by most of its members for the year 1943 and given in the table below.

TABLE 107

Medical expenses per head of worker.

District	Expenditure per head
	Rs. A. P.
South Travancore	4 4 0
Mundakayam	3 8 0
Central Travancore	4 10 5
Munnar	4 13 0
Anamallais	8 10 10
Nilgiris	3 1 3
Wynaad	6 6 7

The number of cases treated in the estate dispensaries and hospitals in 1943 are given in the following table.

TABLE 108

Number of cases treated in estate dispensaries and hospitals, 1943.

District	Total population to which refer	Cases of minor ailments	Cases of major ailments	Total number of cases treated	Number of cases of malaria
South Travancore ..	11,408	31,620	8,610	40,541	2,465
Central Travancore ..	24,268	44,519	3,018	48,537	5,966
Munnar	50,452	53,327*	320,949*	374,276*	1,659
Anamallais ..	27,757	51,757	12,492	64,243	1,810
Nilgiris	9,308	56,605	5,015	61,620	2,417
Wynaad	18,831	40,620	15,169	54,720	5,094
Malabar	2,092	10,374	1,318	20,392	5,098
Coorg	5,080	13,477	5,069	18,546	3,998

* Number of hospital days.

Facilities for medical attention should be more widely available. Rubber and coffee estates should fall in line with tea estates and provide better medical aid to their workers. It would be useful to draw a line of demarcation between large and small estates. Every estate with a resident labour force of 500 and over should have a dispensary in charge of a qualified doctor, with a mid-wife to assist him. In cases where estates belonging to the same company are at a reasonable distance from one another it would be desirable to have a group hospital at some convenient central place with dispensaries in each estate. Four or five neighbouring estates can also jointly maintain a group hospital in charge of a qualified doctor who can visit the individual estates at least once a week. The system of compounders who are called apothecaries by courtesy should be discouraged as they are not competent to diagnose diseases and prescribe medicine correctly.

Prophylactic Measures against Malaria and Hookworm.

In the pioneer days of the plantation industry, malaria used to levy a heavy toll of the lives of the workers. At present, in many districts due to the systematic compaign against the anophylene mosquito the incidence of malaria has considerably decreased. The Kanan Devans and the Anamallais which were highly malarial districts are now practically free from the dread disease. In the Wynaad untiring efforts have been made to eradicate malaria. The anti-malaria measures generally adopted are shading, flushing, oiling, draining of swamps and marshes and the spraying of houses with pyrocide. Many estates are members of the Ross Institute of Tropical Hygiene, India Branch, and carry out the above measures under the expert advice of Dr. Ramsay, Principal of the Branch. The mosquito which transmits malaria in South Indian plantations is *Anopheles fluviatilis* which is easily eradicated by flushing and shading. " Shortage of larvicides, insecticides and quinine has brought out the great importance of biological control measures of malaria such as flushing and shading throughout India..... Flushing is undoubtedly one of the cheapest and most efficient methods of eradicating stream breeding mosquitoes. This has been well demonstrated on many estates and especially on estates throughout Southern India where the dangerous stream breeding *Anopheles fluviatilis* has been so well controlled mainly by flushing that many estates are now practically malaria-free ".[1]

The following table shows the monthly incidence of malaria in the most malarial months of April, May and June in estates belonging to the Malayalam plantations in the Wynaad in certain selected years.

TABLE 109.

Monthly incidence of malaria in estates belonging to Malayalam Plantations, Malabar.

Name of Estate	1935* %	1940 %	1941 %	1942 %	1943 %	1944 %
Achoor	12·0	2·1	2·5	2·4	1·3	1·8
Wentworth	23·4	4·4	3·6	4·8	4·9	4·5
Perengodda	10·3	3·0	3·1	3·3	1·9	3·6
Chundale	12·6	4·7	5·0	3·7	3·7	6·9
Arrapetta	21·8	4·0	4·4	3·3	3·1	4·4
Touramala	29·7	3·9	5·2	6·1	7·7	7·6
Mayfield	28·2	8·3	6·3	5·1	2·0	11·6
Sentinel Rock	28·8	4·3	4·6	4·2	4·4	4·8
Kardoora	27·1	6·3	3·5	3·4	3·4	4·8
Pootumulla	40·4	4·1	3·8	4·0	3·7	6·8

*Before malaria control.

[1]Annual Report of the India Branch of the Ross Institute for 1943, pp. 16-17.

The spleen rate among children in these estates has gone down from 66 per cent. in 1924 to 2.8 per cent. in 1943.

On a group of estates in the Anamallais, the incidence of malaria in 1932-33 before control measures were adopted was 35.71 per *mille*, but by 1942-43 it was reduced to 2.71.[1] In the Mango Range Group of estates in the Nilgiri-Wynaad, the average monthly malaria was reduced to 3 per *mille* in 1943 from 96 in 1931.[2] In Malabar, Coorg and Mysore the planters have yet to start anti-malarial measures. The Consolidated Coffee Estates has, however, started some work in 1944. In Coorg and Mysore, malaria claims many victims from estate labour year after year. It is estimated that 80 per cent. of the children in the principal company in Coorg have enlarged spleen.

Hookworm disease is another common ailment that saps the vitality of the estate labour. The disease is spread through the habit of the workers of easing themselves in the open field. In many estates new labourers coming to the estate as well as old labourers returning to the estate are given compulsory treatment for hookworm in the form of either carbon tetra chloride mixture or chinnapodium powder. Other estates resort to mass treatments if hookworm disease is prevalent among their workers. But to eradicate the disease the only method is to provide adequate latrine facilities and to insist on their use by the labour.

Mud sore among estate workers is fairly common during monsoons and one estate is said to have issued canvas shoes to pluckers with very good results.

Sickness Benefit.

If the worker is ill and is in hospital, he is given free food. But this concession does not mean much except in tea estates as rubber and coffee estates have seldom any facilities for in-door treatment. If the worker is an out-patient, he is given the rice concession for the sick days as on working days, but any cash benefit is rare. In fact, only one estate belonging to the Consolidated Coffee Estates was noticed paying a cash benefit of 8 annas a week.

Maternity Benefit.

Maternity Benefit legislation does not apply to the plantations, nor even to the tea factories in South India because they are treated as seasonal factories. The Royal Commission recommended that Maternity Benefit should be provided by legislation in plantations. "We propose that the law should require an employer to give a cash benefit to the mother, which should ordinarily take the form of half her daily wage for a period of 4 weeks before and 4 weeks after childbirth. In addition a bonus of Rs. 5 should be given, except where the employer has provided the skilled services of a woman doctor and a trained midwife, in which case any woman refusing to avail herself of these skilled services should not be eligible for the bonus."[3] Even though the recommendation has not been implemented, many estates in South India pay maternity bonus of varying extent. Thus out of the 6 tea estates included in the sample from South Travancore, two pay a maternity bonus of Rs. 5, one Rs. 4 and one Rs. 3, while the remaining two do not pay any bonus. Out of 9 estates in Central Travancore, one pays Rs. 10, one Rs. 5, two Rs. 3,

[1] Annual Report of the India Branch of the Ross Institute for 1944, p. 28.
[2] *Ibid*, 1944, p. 31.
[3] Report of the Royal Commission on Labour in India, p. 412.

two Rs. 2|8|-, two 10 days' wages and the remaining one does not pay any bonus. In Munnar both the estates included in the sample pay a bonus of Rs. 5. In South and Central Travancore only 4 out of 8 estates growing both tea and rubber pay bonus ; one Rs. 4 and three Rs. 2. In the Anamallais out of 6 estates, one pays a bonus of Re. 1 in addition to 15 seers of free rice and annas 12 towards *selavu* requirements, another pays Rs. 5 at birth and Rs. 5 six months later, the third pays Rs. 2 at birth and Rs. 2 at the time of settlement and the remaining pay Rs. 3 each. In the Nilgiris out of 8 estates, one pays Rs. 8, one Rs. 5, one Rs. 3 and one, half the wages for a month, while the remaining do not pay any maternity cash benefit. In the Wynaad four estates pay Rs. 5, three Rs. 2 and one 14 days' wages and one pays nothing.

Out of 9 coffee estates in the Shevaroys included in the sample only one was paying a maternity benefit of Rs. 2. In the Madura district no estate is paying any bonus. In the Anamallais the coffee estates pay Rs. 3 for maternity and in the Nilgiris one estate was found to pay Rs. 5 and two Rs. 2. In the rest advances were given at the time of childbirth which were recovered from their wages. In the Wynaad out of five estates, two were paying Rs. 9 and one Rs. 2 while the remaining two did not pay. In Coorg 10 out of 18 and in Mysore 5 out of 23 estates were paying maternity bonus, the amount ranging from Rs. 2 to Rs. 5.

The rubber estates do not employ women workers in such large numbers as tea or coffee and, as a general rule, they do not pay any maternity bonus. Nevertheless, 4 estates in Mundakayam were found paying ; three Rs. 5 and one Rs. 2. In South Travancore also two estates pay Rs. 2|8|- as maternity bonus and in Malabar two estates pay Rs. 3 and one Rs. 2.

In addition to the above cash bonuses, most of the tea estates provide hospital facilities for confinement and the mothers are fed free in the hospital before and after childbirth so long as they remain in hospital. In some estates a bottle of milk is also issued free for a period of one to three months after childbirth. Most of the estates, tea, coffee as well as rubber, provide a woman attendant for the mother for 5 to 10 days from the day of the childbirth and her wages are paid by them.

In the Anamallais and the Kanan Devans and partly also in the Wynaad, the maternity bonus is conditional on the child being alive six months after the birth or at the time of the yearly settlement. Whether this is a loophole to escape payment of cash benefit by the employers, or whether, as the employers assert, it is to prevent the mother from neglecting the child, it is difficult to say.

Pre-natal and Post-natal Care.

It is surprising that sufficient attention is not paid to pre-natal and post-natal care of infants born in estates, especially as the children born of plantation workers are the one great source of labour in the future. Some estates, however, supply milk to expectant and nursing mothers and some even give a small quantity of cod liver or shark liver oil daily to them. The value of pre-natal care of infants is best illustrated by a statement of a doctor in one of the group hospitals in the Anamallais, that in 1936 the average weight of a new-born child was 3 lbs. while in 1944 it was between 5 lbs. 12 oz. and 5 lbs. 14 oz. This improvement was brought about by admitting expectant mothers in the hospital two to three months before delivery for pre-natal care.

Confinement in Hospital.

Women workers on plantations, being ignorant and illiterate, prefer the lines where they are surrounded by their relations for confinement. It is encouraging that in many estates various inducements are offered to expectant mothers to go to hospital for confinement. These inducements are free food, a free sari, and a stipulation that, unless the delivery takes place in the hospital, cash benefit will not be given. By these inducements and by gradual education of the women workers in this matter, their reluctance to go to hospital for delivery is disappearing and today in the Kanan Devans and the Anamallais where good hospital facilities are available, women are going to hospital in large numbers. One cause of the reluctance of women to go to hospital for confinement is that there are no midwives or lady doctors in the hospital. In one estate in the Anamallais it was stated that since 1941 when a mid-wife was appointed, nearly all deliveries took place in the hospital. All estate dispensaries and hospitals should have a trained midwife and at least the bigger group hospitals a lady doctor. The United Planters' Association of Southern India recommendation in this connection is that the services of a trained midwife should be available to all estates carrying a resident labour force of 200 or over. But this has not been generally followed.

Puberty Bonus and Funeral Grants.

Among the South Kanara labourers, a girl's reaching puberty is a great event and has to be celebrated with particular rites and ceremonies. In such cases many of the estates give a bonus of Rs. 5.

Funeral grants are more common. Nearly in all estates the expenses of a worker's cremation or burial are met by the employer or a cash allowance of Rs. 3 to Rs. 10 is given to the relations of the deceased to defray the funeral expenses.

Some estates give marriage presents of Rs. 3 to Rs. 5 to their workers.

Schools.

Many estates have primary schools for the education of their workers' children. While many Superintendents of estates encourage the children to attend school, others are indifferent and a few even think that education of children will tend to deplete the source of labour for plantations. Perhaps a more serious handicap is the indifference of the parents to educating their children. They have no higher ambition for their children than that they should follow in their footsteps and become workers on the estates. Another, perhaps stronger, reason for the parents' attitude is that their earnings are not adequate to support a non-working child and the sooner the child is able to contribute towards the family income, the better it is for the parents as well as the child. To increase the earnings even by a small mite, many parents are forced to call away their children from school and put them on to work.

It is interesting to note that in one estate in Mundakayam 100 per cent. of the children of school-going age go to school as the free issue of two measures of food-grain per week is not given to children who do not attend school. An old planter in the Anamallais gives two annas per day to children below 10 for going to school in the morning and doing light work in the afternoon.

In 1941 the United Planters' Association called for information from their members regarding the number of schools, the average attendance and expenses incurred. The information received is tabulated below :—

TABLE 110

Schools and average attendance in United Planters' Association of Southern India estates, 1941.

District	Number of estates	Number of estates having primary schools	Average attendance	Expenditure per year on schools	Remarks
South Travancore	16	15	873	2,085	
Central Travancore	25	19	728	3,823	One estate has 2 primary schools.
Mundakayam	8	4	139	..	
Kanan Devans	37	33	1,351	12,691	
Anamallais	29	21	1,038	10,486	
Nilgiris	33	8	377	..	
Wynaad-Nilgiris	14	6	265	..	
Malabar	7	2	50	..	
Wynaad-Malabar	15	8	274	..	
Coorg	5	*Nil*	*Nil*	..	
Mysore	5	1	30	..	

In the estates included in the sample, education facilities for children were as follows :—

In tea estates, 3 out of 6 in South Travancore, 3 out of 9 in Central Travancore, 5 out of 8 in the Nilgiris, 5 out of 9 in the Wynaad and all in Munnar and the Anamallais had schools.

In coffee estates, in the Shevaroys there was no school, in the Nilgiris and the Wynaad there was a school only in one estate each, and in Mysore and Coorg, two estates each had schools.

In rubber estates only 8 out of 30 had primary schools. In one of these estates, however, there were three schools, two for Tamil boys and one for Malayalee boys and in another there were two schools.

Even the existing schools in the estates hardly come to the minimum standard of schools as understood elsewhere. Very often the schools in the estates are only small sheds where one teacher instructs children of all ages and of all standards. In many cases the school shed was one end of the muster shed, the other end being used as a creche. In the creche the children cry and the women in charge swing the cradle and sing rustic lullabies. A few feet apart, the teacher teaches a group of babbling children aged from 4 to 12. How, under these circumstances, can education be imparted or imbibed is difficult to understand. For the proper education of children congenial atmosphere and the right type of teacher are most essential, and these only very few estate schools have.

Several estates which have schools have no creches. Providing schools without creches defeats its objects as the school-going children are often kept away from school to look after the younger children.

There are few or no Government schools in plantation areas. Nearly as important as the education of children is the education of adults. Almost all the plantation workers are illiterate. No attempts appear to have been made to educate them through night schools, magic lantern lectures, etc.

Creches.

In nearly all the coffee and rubber estates creches for looking after children during working hours are absent. But most of the tea estates have some provision or other for this purpose. In tea estates in South and Central Travancore generally the muster shed is used as a creche where two or three women are set apart for looking after the children. In the Anamallais, the Kanan Devans and the Nilgiris, the creche is either the muster shed or a room in one of the lines, where two or three elderly women look after the children of workers during day-time. In some estates even though there is no separate place set apart for the purpose, an elderly woman is placed in charge of the non-working children. Only in one estate in the Wynaad was any properly maintained creche found. Here an assistant superintendent's bangalow was converted as a creche. In one cardamom estate in Central Travancore a creche was specially built for the purpose and was in charge of a nurse. It provides a spacious playground, seesaws, swings and a large bathing tub for the children.

The United Planters' Association of Southern India's Labour Advisory Committee considers that shelters for children-in-arms should be provided at convenient centres in the plucking fields and that attendant women should employed at the expense of the employer. This suggestion has been completely ignored.

It should be made compulsory for the estates to provide properly constructed creches with facilities for the children to play and amuse themselves. The creche should be under the care of a nurse who understands hygiene. In fact, a properly maintained creche in charge of an efficient and painstaking nurse would contribute towards the education of plantation workers from early childhood in personal cleanliness and hygiene.

Free Feeding of Children.

The free feeding of children once per day was recommended by the United Planters' Association of Southern India to all its members. Its welfare pamphlet states, " One meal per day should be provided by the employers to the children on the estate from the time they are old enough to eat (say two years of age), until they are old enough to work. The food should be cooked under the supervision of the estate medical staff and issued in its cooked form to the children assembled at the hospital or muster ground and the meal should be consumed on the spot."

The free feeding of non-working children, however, is not a universal practice. It is done in most of the European-owned and in a few of the Indian-owned tea estates. In coffee estates the feeding of children is an exception while in rubber estates there is no feeding of children at all. In some estates children are fed free only once a week. Even in estates that follow the United Planters' Association of Southern India recommendation children are not fed on Sundays. In some estates, on the other hand, only school-going children are fed.

The meal consists of rice, dal, and a cooked vegetable. Rice and ragi are served on alternate days. While in some estates the feeding of children is taken up in earnest, the management evincing keen interest, in others it is only a show. Many were the complaints brought in by the labourers that immediately a child returned from the free feeding it cried for food, the feeding in the creche being insufficient. The Managers should find out if there is any leakage from the amount sanctioned or the provisions supplied for the mid-day feeding of children, especially in estates where low paid staff are in charge of feeding. That the food given to the children is unbalanced and insufficient in quantity was the candid opinion expressed

by a number of doctors on the estates. For example, in one estate in the Nilgiri-Wynaad on 30th November, 1944, only 11 measures of rice and 1½ measures of dal (*i.e.*, 5½ Madras measures of rice and ¾ measure of dal) were cooked to feed 140 children. In the opinion of the doctor at least 18 measures of rice and 3 measures of dal were required for proper feeding.

Shops.

In some estates there are public markets nearby. In others which are isolated weekly *shandies*, generally on Sundays, are arranged for the benefit of the workers. Nearly all estates have, in addition, shops where provisions can be bought by the workers. These shops are licensed by the management and some managers make it a condition that credit should not be allowed either to the workers or to the maistries, but several managers admitted that this condition was not observed. Where credit is allowed, checkroll balances at settlement time are often illusory, as the shop-keepers capture most of the savings at the end of the season. Shops managed by maistries were a fruitful source of exploitation of the workers and it is noteworthy that such shops are disappearing. Even now in some estates, especially in Travancore, shops are run by maistries. This practice should be discontinued. In many cases maistries get a percentage commission from shops which give credit to the workers in their gang.

Co-operative Societies.

Only in two estates were noticed Co-operative stores for the benefit of the workers. One estate is Ayerpadi of the English and Scottish-Joint Co-operative Wholesale Society and the other the Government Cinchona plantations, both in the Anamallais. The co-operative store in the Cinchona plantation has five branches, one in each of the divisions. They supply rice and provisions to the workers, the staff and the contractors. The co-operative store in the Ayerpadi estate has a share capital of Rs. 3,600. The shares are of 'A' and 'B' class, of the value of Rs. 10 and Re. 1 respectively. The company advanced a sum of Rs. 5,000 free of interest to the co-operative store, mainly in the form of advances to the staff and the maistries for taking up shares and the amounts were to be recovered from their pay in 20 instalments. No worker has taken any share in the store. Rice, provisions, cloth, matches, tinned food, etc., are sold to the members and the workers at a very small margin of profit. The example of the Ayerpadi estate can be followed with advantage in other estates which should stop the present practice of leaving the estate shops to be run by kanganies or unscrupulous and greedy merchants.

Co-operative societies of the credit type are not found anywhere in the plantations, although the system of housing and the constant contact of labourers with one another help to create an atmosphere congenial for the development of healthy co-operation in plantations. But the prime requisites of co-operation, *viz.*, mutual trust and confidence and, above all, education are lacking among plantation workers and it would take some time before co-operative societies on right lines can be started there. It would be desirable for the co-operative departments concerned to make a start in some selected estates where the Managers are sympathetic and likely to take keen interest in the matter.

The Anamallais Hills Cattle Society.

The Anamallais Hills Cattle Society was started in 1933 with the main object of increasing the milk yield in the district with the limited available grazing area. The secondary object was to increase the value of animals for exports by breeding a pure Sindhi strain. According to the quinquennial Cattle Census held recently, the total number of cattle (excluding buffaloes) in the Anamallais is 3,986. There is a large number of half-bred Sindhi cattle and a few pure breds. By a systematic process of breeding through pure

Sindhi bulls, the Sindhi graded cows yield nearly 50 per cent. more milk than the local ones.

The membership of the Society consists of all the estates in the district. Tea estates subscribe Rs. 30 and coffee estates Rs. 15 per year. A foot bath and a cattle inspection station have been opened at Attakatti on the only road of approach to the district, thereby controlling infection to the cattle on the hills. It is estimated by the President of the Society that 95 per cent. of the cattle are owned by staff and labourers but the share of the latter seemed to be very small. The Society organises an annual cattle show for propaganda and gives prizes for the best cattle. The cattle show is a great inducement for the staff and the workers to maintain their cattle in good condition. The Society is run entirely on a voluntary and private basis and was said to owe little to Government help and interest.

At present all the herds in the district are served by pure Sindhi bulls; all cattle are branded and the poor stock is being discarded in favour of animals of Sindhi strain. The yield of milk in the district has increased and its price has come down.

Sports and Recreation.

The Royal Commission recommended that Managers should assist in organising suitable recreation for their workers and should provide playing fields for general recreational purposes. The Labour Advisory Committee of the United Planters' Association of Southern India also recommended that foot-ball grounds and volley-ball court should be provided by the management. But little progress has been made in organising recreation for workers, although some estates have provided recreation grounds and playing fields. One estate in the Anamallais has a foot-ball field and a few estates in Travancore have volley-ball courts. Also a number of estates arrange annual sports meetings. A few estates have a radio which is tuned on for an hour between 5-30 and 6-30 p.m. for the benefit of the workers. The Kanan Devan Hills Produce Company has a cinema in Munnar where the workers can go for entertainment. Itinerant circuses are sometimes invited to the estates and free shows are given to the workers, but this is rare. Some estates arrange cattle shows. The maintaining of playgrounds and the putting up of a radio near the workers' colony would not cost much to the estates but would go a long way in providing recreation and entertainment to the workers. It is realised by progressive planters that money spent on labour welfare is a very good investment.

Improvement in Labour Conditions since the Royal Commission's Report.

There is no doubt that the labour conditions in South Indian plantations have improved in recent years though the degree of improvement has not been uniform. It is safe to say that housing, medical facilities, sanitation and water supply have improved substantially, mainly in tea estates. Progress has been least marked in coffee and rubber estates.

Many of the Royal Commission's recommendations such as making illegal the recovery of any amount advanced to meet travelling expenses to the place of employment, or of pre-employment advances to the workers except from the first wage payment, weekly payment of wages, requiring Managers to maintain birth and death registers and provision for their inspection, building of workers' houses in blocks of two rooms, prescribing standard minimum requirements in regard to plinth, floor, cubic space, light and ventilation and preparation of standard type plans to suit varying conditions, provision of a number of lights in and around the housing sites and of adequate latrine accommodation, employment of women doctors by each medical group organisation for confinements in hospitals, for the training and supervision of midwives and *dais*, and for child welfare work, provision of maternity benefit by legislation,

organising suitable recreations for workers and providing them with playing fields, employment of health visitors, prohibition by law of employment, either directly or with their parents, of children before the age of 10 years and the establishment of Boards of Health and Welfare under statute for convenient planting areas, have not been implemented.

EMPLOYERS' AND WORKERS' ORGANISATIONS.

A remarkable feature about the plantations is that while the employers are well organised and powerful, economically as well as politically, the workers are unorganised, illiterate, and ignorant with no one to represent their case before the public or the Government. The planters have so far neither encouraged nor sympathised with any attempt towards the organisation of labour in their estates.

Employers' Organisations.

There are 15 District Associations and a Central Association called the United Planters' Association of Southern India with headquarters at Coonoor. The United Planters' Association was founded in 1893 and its membership at present consists of 264,543 acres of plantation crops made up of 146,636 acres of tea, 56,964 acres of rubber 48,157 acres of coffee and 12,786 acres of minor products. These acreages represent roughly 90 per cent. of tea, 40 per cent. of rubber, 25 per cent. of coffee and 12 per cent. of minor products grown in South India. A considerable amount of the unrepresented acreage under rubber, coffee and minor products consists of small holdings and privately owned properties. The United Planters' Association consists of three classes of members, (1) Owners of plantations of tea, rubber, and minor products; (2) Firms, Companies or Corporations interested in the plantation industry; and (3) District Planters' Associations. The control of its affairs rests with the General Meeting of members, who act through an Executive Committee.

The first class of members noted above have predominant control over the affairs of the Association by virtue of voting power based on acreage and are organised into three product sections—tea, rubber, and coffee and minor products. Each of these sections appoints a Chairman and a Committee which deal with matters affecting the individual products, while general questions affecting the industry as a whole are dealt with by the Executive Committee composed of a President, elected annually by the general meeting of members, the immediate past President, a representative from each product section committee, usually the Chairman, and two members co-opted from among members of Provincial or State Legislatures in South India or the Central Legislature, who are associated with the plantation industry.

There are 22 firm members of the Association drawn from firms interested in planting either as Managing Agents, suppliers of estates requisites or dealers in plantation products.

There are 15 District Association members which deal with local affairs and co-operate with the main body in matters affecting the industry as a whole. The District Associations are the Association of Planters of Travancore, South Travancore, Central Travancore, Mundakayam, Kanan Devans, Anamallais, Nelliampathy, Malabar, Nilgiri, Nilgiri-Wynaad, Wynaad, Shevaroy, Coorg and Mysore and the Indian Planters' Association of Mysore. The Association of the Planters of Travancore looks after the affairs of its members *vis-a-vis* the Government of Travancore, while the other Associations in that state which are closely associated with the former deal with matters primarily within their own areas. In addition to these 15 Associations, an Indian Planters' Association has recently been formed in Coorg.

The Association has its office at Coonoor and maintains a Scientific Department with two sections, one for tea and one for coffee. The office and the

scientific department are financed by an acreage subscription from all members and annual subscription from firm and Association members.

The United Planters' Association of Southern India is represented in London by the South Indian Association. It is affiliated to the Chambers of Commerce of Madras and Mysore and is a member of the Employers' Federation of Southern India. It co-operates with the Indian Tea Association, Calcutta, and the Association of Planters of Travancore and has representatives on the Indian Tea Market Expansion Board, Calcutta, and the Indian Coffee Cess Committee, Bangalore.

The interests of the Planting Community in South India are represented in the Central Legislature by Sir F. E. James, O.B.E., M.L.A., who is also the political adviser to the United Planters' Association of Southern India and the liaison officer with the Central Government. The Association is directly represented in the Madras Legislature. In addition, the planting community in South India is represented in the Legislatures of Coorg, Mysore, Travancore and Cochin, either through election or nomination.

Workers' Associations.

In striking contrast to the powerful organisation of the employers, there is no organisation of any kind worth the name among the large mass of plantation workers. There was no trade union in any of the estates included in the sample. But one estate, *viz.*, the Koney estate in South Travancore mentions in its reply the existence of a trade union with very small membership among the workers. The reply also states that in the event of any dispute the union officials are expected to co-operate with the Manager ! It is, therefore, unnecessary to comment on the strength or the representative character of this trade union or its power of bargaining *vis-a-vis* the Manager.

During the last decade, a few spasmodic efforts were made in certain centres to form trade unions among the workers. Two such unions were formed, one in the Anamallais and the other in Mundakayam, but both of them were short-lived. The efforts of the Anamallais Workers' Union led to an enquiry by the Madras Government in 1938 into the condition of labour on the plantations in the Anamallais.

Any tendency at combination among the workers is jealously watched by the Superintendents who view with disfavour the contacting of their workers by outsiders. In the large majority of estates outsiders, other than friends and relatives of labourers, have to take previous permission of the Superintendents before they can enter the precincts of the estates, especially if such outsiders come with the purpose of organising the workers in Trade Unions. There have been instances when such outsiders were severely man-handled at the instigation of the Superintendents. Many Superintendents affirm that they have no objection to the workers forming themselves into trade unions so long as the unions are led by the workers themselves, but they would not tolerate outsiders to lead the workers. Even the legislative recognition of the right of registered unions to employ outsiders and to include them in their executive has not helped to remove this prejudice against outsiders from the minds of the planters. If the workers in plantations are left to their own devices in the matter of organisation, not for another fifty years can we see a trade union coming up. Perhaps it is this confidence that is at the root of the planters insisting on the preclusion of outsiders. As observed by the Royal Commission, " The endeavour to dictate to unions on the subject of their officers or leaders is equally short-sighted and unwise. We have referred to the great difficulties confronting the movement which made the employment of a proportion of outsiders inevitable. In some cases victimisation, and more frequently the fear of it, gives an additional value to the outsider. The claim to be allowed to deal only with ' one's own men ' is frequently

little more than an endeavour to secure that the case of the men shall be presented by persons who are not likely to prove assertive "[1]. It is rather too late in the day for the planters to raise the " outsider " controversy.

" There are several practical difficulties in forming trade unions in plantations. The workers are mostly illiterate, speak different languages and are helpless. Again, the isolated nature of the plantation areas and the strenuous efforts made by the planters to prevent outsiders from contacting their labour have hindered the growth of trade unions in the plantations. Moreover, the period of contract in all estates is 9 to 10 months, and after this period the worker goes to his village and may or may not return to the same estate. Ten months is too short a time to build up a feeling of fraternity and mutual trust which are pre-requisites of effective trade unionism.

Strikes.

No full information about strikes is available and it appears that they are rare in view of the complete unorganised condition of plantation labour. Most discontent on estates arises from excessive tasks. Harsh or oppressive subordinate staff is another fruitful source of trouble. In recent times a frequent cause of agitation has been the necessity of making alterations in the customary grain rations. But these causes for discontent do not lead to concerted action. There has been no concerted action even about wage rates and even when rates were reduced during the depression, such complaints as were made amounted to little more than grumbles.

Relationship between Planters and Labour.

The plantation labour has more occasions to come into direct contact with the management than the industrial labour. The United Planters' Association of Southern India states in its reply that in all estates, the labourer has direct access to the Manager and can, if he wishes, place any grievances before him. But it may be stated that this is not universally true. Managers of many estates do not hear complaints directly from the worker but only if presented through his maistry. The United Planters' Association of Southern India itself has indirectly admitted this fact, while urging the need for the continuance of the kangany system. " They (the labourers) need a man to guide them in their work and a man to represent their requests and grievances to the proper quarters." This is especially true of rubber and coffee estates where the Managers refuse to have anything to do directly with the workers. Further, even if the worker has direct access, he has not the courage to stand before the Manager to voice his grievances. He is afraid that he will be victimised or dismissed on that account. Nor is his fear without foundation. It was brought to our notice by some of the staff in one estate in the Wynaad that when in 1938, the Hon'ble Mr. Giri, Minister for Industries and Labour, Madras, visited it in the course of his tour of planting districts and questioned the workers regarding their grievances, workers who had put up some complaints before him were summarily dismissed by the Manager the next day.

On the whole, however, it must be said that the relations between the planters and the workers in the estates are fairly cordial. Whether it is the result of genuine confidence in each other or the outcome of fear on the part of the labourers, it is very difficult to say.

The United Planters' Association of Southern India, unlike the Indian Tea Association, has appointed a Labour Advisory Committee composed of planters of long experience of plantation labour with a view to forestalling, as far as possible, reasons for discontent among labour. All questions in connection with labour such as rates of pay, dearness allowance, general welfare, etc.,

[1]Report of the Royal Commission on Labour in India, p. 324.

are examined by the Committee and recommendations made to the Association. The Association standards in respect of the welfare of labour in South Indian plantations were drawn up by this Committee and if they are strictly adhered to, there is no doubt that there will be considerable improvement in the condition of labour. But the recommendations are not followed by the estates uniformly, not even by the members of Association. The fact that there is not even a single representative of labour on the Labour Advisory Committee is perhaps due to the dearth of suitable men from among the rank and file of the workers.

The Estates Staff's Association of Southern India.

Though the subordinate staff employed in the plantations either as clerks in the office or as supervisors in the field do not come under the terms of reference of the Committee, a word may be said about the organisation they have built up and the benefits they have obtained through it.

The Estates Staff's Association was established in 1929 with its Central Office in Coonoor. Today it has branches in almost all the planting districts, and its membership consists of 1,500, nearly a fourth of the total staff in the plantations in South India. Through repeated petitions it has been able to obtain for the staff dearness allowance, Provident Fund benefit and better terms of employment. Today if a member is dismissed by the Superintendent of any estate, it looks into the matter and, if the dismissal is not on sufficient grounds, tries to have him re-instated. It is still fighting for better terms of employment, standardisation of pay, security of service, etc. It can serve as a guide for the organisation of the workers in the plantations and the experience gained by some of the staff in the organisation and administration of their association will prove useful if some of them make an effort to organise estate labour under their lead. Or, better still, the organisation of the workers can be entrusted to the Association which might enlarge the scope of its activities and include the workers also among its members. Some of its representatives said, in fact, that this was one of the ideas behind its formation, but that the hostility of the planters even towards their Association was so strong that if they were to try to bring in the labourers also under its wing, it would spell the extinction of the Association itself.

CHAPTER V.—GENERAL.

Establishment of Wage Boards.

The Royal Commission on Labour observed in this connection as follows. "Our survey of the position in Assam has convinced us that the establishment of wage-fixing machinery for the tea industry, if practicable, is desirable. It has also given us reasons for believing that, if proper methods are adopted, a practicable scheme to this end can, in fact, be devised.[1] The plantation industry is one in which conditions are such that establishing of a suitable wage-fixing machinery is particularly necessary—employers are highly organised and powerful, while labour is unorganised, illiterate, preponderantly aboriginal and immune from influences which operate in the case of industrial labour living in compact towns. Of course, the best safeguard for labour is the evolution of effective trade unions and collective bargaining, but these things are not likely to appear in plantation areas in the near future. Until then, it is the duty of Government to see that the labour is not exploited and that it gets a fair deal. During a debate in the Central Legislative Assembly on the 23rd March 1943 on the Bill further to amend the Indian Tea Control Act, 1938,

[1]The Report, p. 388.

the Hon'ble Dr. B. R. Ambedkar, Labour Member of the Government of India, stated : " It is not open for the Government of India to impose fair conditions of wages on Ceylon as a condition precedent and not applying the same standards of labour in India. The Government of India by the various Ordinances has laid down that wherever any restriction has been imposed upon labour, the Government of India will see that fair conditions of labour are granted to labour. These are the things which the Government of India considers it is bound to apply in the case of plantation labour. Nor can it be denied that whatever may have been the conditions of plantations in the long past, at present the condition of plantations is such that they can bear the weight of such wage standards as a Board may impose upon them."[1] As in Ceylon, elaborate arrangements have been made between the Government of India and Malaya under the Indian Emigration Act, 1922, to safeguard the welfare of the Indian workers on the estates. The Government of India have, " in fact, insisted upon conditions being guaranteed to Indian workers on Malayan plantations which are not applied to the plantations of Assam ".[2] The Whitley Commission observed :—" We are satisfied that the position in Assam of the emigrant from Chota Nagpur is not essentially different in this respect from that of the Tamil emigrant in Ceylon. Indeed, the contact between the recruiting districts and the districts of employment is closer in the case of Ceylon than in that of Assam."[3]

That the work in the plantations is of an agricultural nature is no bar to the establishment of Wage Boards in them. There have been legislative enactments in the United Kingdom, Irish Free State and New Zealand on agricultural wages. Wage-fixing machinery is a recognised item of progress in labour legislation. The Government of Travancore have framed a Trade Boards Bill which applies to plantations. It is perhaps unnecessary to adduce further justification for the establishment of Wage Boards in plantation areas as both the Indian Tea Association and the United Planters' Association of Southern India are not opposed in principle to their establishment, if the term Wage Board signifies the kind of Wage Board envisaged by the Royal Commission for plantation labour in North-East India.

The Indian Tea Association states in its reply, " The most important question—and one which would be fundamental in determining our attitude towards any concrete proposal for the establishment of Wage Boards—relates to the method to be adopted for the representation of labour. There is at present no organisation which can represent the interests of the workers, nor do we believe that there is any likelihood in the immediate future of the labourer becoming able to make a wise choice of representatives himself. He will clearly, as the Royal Commission saw, have to be represented by ' outsiders ' for the time being and the only question is as to whether those representatives should be non-officials or officials.

" In our view—and we hold it strongly—they should be officials. We base this opinion on two main reasons. In the first place, if the Boards are to operate satisfactorily, their members will have to acquire a great deal of knowledge of labour matters. It will not be just a question of attending Board meetings occasionally and losing contact with labour questions in the intervals. As far as the employers' representatives are concerned, they are continuously in contact with labour and it is equally necessary that this should apply also to the

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[1]Legislative Assembly Debates, Vol. II, No. 8, p. 1372.

[2]Harold Butler : Problems of Industry in the East (I.L.O.), p. 44.

[3]Report of the Royal Commission on Labour in India, p. 389.

labour representatives. This means that those representatives will have to devote their whole time to labour matters. No non-official can be expected to do this and it seems clear that officials will have to be appointed. Moreover, it would not be easy in North India to find non-officials properly equipped by training and temperament for this work, and free from political bias. It is in any case doubtful whether such non-officials would command the confidence of labour to the same extent as officials.

" It is not necessary at this stage to attempt to define the jurisdiction of each Wage Board. It is, however, important to make it clear that the area of each Board must be sufficiently small so that due account can be taken of variations in conditions from locality to locality. If Government decide to go ahead with the proposal for Wage Boards, we shall be prepared, if so desired, to try to put up a scheme.

" As regards the composition of the Boards, we suggest that each Board should consist of—

(1) the Deputy Commissioner of the District concerned,

(2) a representative of the employers, nominated by the Indian Tea Association, and

(3) a Government official nominated to represent labour. It would be ideal if the Controller of Emigrant Labour could be the labour representative on all Boards, but this would perhaps not be practicable and it might be neeessary for Government to appoint special Labour Officers for this purpose. In our view they should be of not less than Provincial Civil Service rank, and in view of the fact that the industry is spread over several provinces, they should be officers of the Central, not of the Provincial Government. We attach a great deal of importance to the appointment of officers of adequate status for this purpose, just as we also consider that the Chairman of the Board must be an officer at least of the rank of the Deputy Commissioner."

In view of the fact that, unlike in North-East India, the plantation industry is not homogenous and includes coffee and rubber in South India, the United Planters' Association of Southern India considers that no single Wage Board could possibly deal satisfactorily with the whole industry and that it would be necessary to have district boards and possibly also " crop " boards, subject perhaps to a general co-ordination. It also considers that the function of wage-fixing should be combined with that of the general machinery for dealing with plantation labour problems, since the question of wages cannot be considered apart from the other problems of labour welfare and a multiplicity of Boards and inspectorates is not in the best interests of the efficient conduct of industry. There is no objection whatever to the Wage or Trade Board's dealing with the various problems of plantation labour ; for, as observed by G. D. H. Cole, " Trade Boards were to be no longer merely a weapon against sweating, but were to take their place in a comprehensive scheme for the regulation of industrial relations ".[1]

The difficulty of securing proper representatives of labour on the Wage Boards is not insurmountable. In Assam, there are four elected labour M.L.As. who can represent labour on the Boards. In other areas, until labour is able to produce a suitable representative from its own ranks, it should be represented on the Boards by disinterested outsiders who have made a study of labour conditions on plantations ; or, if they are not available, by the Labour Welfare Officers whose appointment is suggested elsewhere.

[1] G. D. H. Cole ; British Trade Unionism to-day, p. 135.

Application of the Payment of Wages Act.

The Royal Commission on Labour recommended the application of the Payment of Wages Act to the plantations. "In discussing indebtedness we have made recommendations relating to the regular and prompt payment of wages, the recovery of recruiting costs, including the cost of transit, and restrictions on the recovery of advances. These are intended also for application to plantation labour. They should be of especial value in South Indian plantations in improving the independence, economic position and bargaining power of the worker".[1] The Indian Tea Association states that there appears to be no particular need or justification for the extension of the Payment of Wages Act to non-factory workers of the tea industry as in North-East India Wages are regularly paid, fining is scarcely used at all and advances given are recovered in every easy instalments. It, however, admits that the extension of the Act to plantation labour would give rise to no great difficulty. The United Planters' Association of Southern India is not, however, in favour of applying the Act to plantation labour, though the evils to remedy which the Act was passed exist prominently in South Indian plantations. The annual settlement system prevailing in South India is not in the interests of labour and can be eliminated by the extension of the Act to the plantations. The Act can be extended to plantations by a notification by the Provincial Government concerned under sub-section (5) of Section 1 of the Act.

Tripartite Machinery for Dealing with Problems of Plantation Labour.

The Indian Tea Association in its reply states that none of the three considerations which may justify the establishment of a Tripartite machinery, *viz.*, (a) the labourer needed greater protection, (b) the labourer had begun to demand it, and (c) the labourer had reached the state at which his education could suitably be advanced by accustoming him to such machinery, applies in the case of the tea industry in North East India at the present time. It adds, "If any tripartite machinery were to be set up now, the most difficult question would be as to the representation of labour. This at once raises the question as to how far 'outsiders'—non-officials not connected with the industry—could suitably represent tea garden labour. There can be no objection in principle to representation by 'outsiders'. In the 19th century, in Britain, the Trade Union movement owed much to the help given to it by educated 'outsiders', while both in this country and in Europe the Employers' Associations are frequently represented by 'outsiders'. The question is then, not one of principle, but of practical difficulties. In the 19th century, in Britain, there was a considerable leisured class, public spirit was highly developed and people ready to work for the good of the labourer, with no selfish ends in sight, were available in adequate numbers to provide the necessary leadership. In India conditions are in these respects very different and there is not in fact available a sufficient number of educated people with the right outlook and ready to take up this work. Moreover, the British worker in the 19th century had reached a higher stage of development and consciousness of his rights than the tea garden labourer in North East India today and the introduction of 'outsiders' was therefore not so likely to lead to his exploitation. Under Indian conditions, it may well be that the risks involved in bringing in 'outsiders' to represent the labourers' interests would be greater than the good likely to accrue. If any machinery of the kind contemplated is to be set up, it would probably be desirable that labour should be represented by Government officials. Presumably the Labour Commissioner and his assistants would be the most suitable persons to do this."[2]

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[1]The Report, p. 402.

The United Planters' Association of Southern India considers a tripartite machinery as obviously just and reasonable when conditions warrant it, *i.e.*, when labour itself is able to take its own place on the body. It also emphasises the difficulty of representing labour on a tripartite machinery, especially as the plantation labour in South India crosses political frontiers between its permanent home and its place of work. It thinks that a bipartite machinery, *i.e.*, the Government and the employers would be infinitely more suitable for dealing with the problems of plantation labour, though it recognises that legislative approval for the constitution of such a machinery would probably prove difficult to secure.

The tripartite machinery is a recognised method of resolving troubles and misunderstandings between the employers and the employees with the assistance of Government representatives. The difficulty of securing proper labour representatives on the body can be solved as suggested above in the case of the Wage Boards. If, however, a Wage Board is established and is allowed to regulate industrial relations between planters and their labour, there would be no need for a separate tripartite machinery.

Statistical Data about Plantations.

The only statistical data available at present about plantations on an all-India basis are contained in the annual Indian Tea, Coffee and Rubber Statistics published by the Department of Commercial Intelligence and Statistics, India. These publications contain information, *inter alia*, about area, production and employment in these crops in each district in Provinces and States. Statistical information about recruitment, labour population, average daily working strength, average wages, mortality and birth and death rates is available only about Assam plantations in the Annual Report on the Working of the Tea Districts Emigrant Labour Act, (XXII of 1932), of the Controller of Emigrant Labour. The only other statistical information available is about plantation labour in the Dooars and is contained in the Report on the Working of the Jalpaiguri Labour Act. This report gives data about labour population, birth and death rates, and sickness. Information about sickness is not contained in the Controller's report. The average wages shown in the Controller's report are cash wages and take no account of concessions in kind. As the concessions of cheap rice and cloth will disappear as soon as things become normal and as other concessions cannot be evaluated in terms of money and are also essential to hold labour, no change in the wage statements appears necessary. It is very necessary to have statistical information similar to Assam in other plantation areas also in order to compare labour conditions in different areas. In addition, information about living conditions, prices of commodities and cost of living, incidence of sickness, loans to workers, etc., should also be collected in all plantation areas. It would be enough if plantations of 25 acres or over are required to furnish the necessary statistics as the smaller plantations hardly engage outside labour and have no labour problems.

Labour Welfare Officers.

As long as plantation labour is not able to stand on its own legs, it is essential for Government to employ Labour Welfare Officers to look after their interests. The cadre of these officers should, even if it has to be employed and paid for by the Provinces, be selected and trained by the Centre and borne on a Central list. They must be men of suitable status, at least corresponding to the Provincial Civil Service, if they have to deal on equal terms with the Managers, as they should be also entrusted with the duty of inspection of plantations, inspections being of essential importance as labour is weak. Ex-officio Inspectors such as the Labour Commissioners and the District Magistrates have hardly any time for proper inspections. At present, there is

hardly an effective system of inspection of labour conditions anywhere. There must be a sufficient number of such officers, if they are to be of any use. For instance, it would be necessary to have three Labour Welfare Officers for Assam (2 for Assam Valley and 1 for Surma Valley), one for Bengal plantations and one for Madras Province and for each of the States concerned. These officers will visit the estates, talk with the labourers and bring all cases requiring redress to the notice of the Managers in the first instance ; if no redress is given, they will report such cases to the Central Government through the immediate superior officer, *viz.*, the Controller of Emigrant Labour or the Commissioner of Labour, as the case may be. Under the guidance and instructions of these officers suitable men from labour ranks can learn the principles and practice of unionism. In fact, these officers should be charged with the duty of fostering trade unionism among labourers. In Ceylon trade unions have been formed among Indian labourers on plantations. A Seven-Point Agreement which was drawn up at a conference held in 1940 between Planters' representatives, union representatives and Government provides, *inter alia*, that all registered unions will be recognised.

Plantation Labour Code.

At present the plantation labour industry does not come under any labour legislation, except the Workmen's Compensation Act, which applies to estate growing cinchona, coffee, rubber or tea and on which, on any one day in the preceding twelve months, twenty-five or more persons have been employed otherwise than in a clerical capacity. As accidents are very rare in plantations, this Act hardly affects the labour. The Tea Districts Emigrant Labour Act which applies only to Assam is not, strictly speaking, a piece of labour legislation, but is really emigration legislation as it only regulates recruitment and forwarding of recruited labour to Assam and their repatriation. The only measure taken in the whole of India for the direct control of labour conditions on plantations is by the State of Cochin which has framed plantation labour rules which came into force on 1st May 1937. These rules are given in Appendix XII. Labour conditions on plantations are thus completely unregulated and vary enormously from one place to another. There is no common uniform standard in the conditions of work. There is no doubt that the labour conditions on plantations must be brought under regulation. But as the conditions of life and employment on plantations are different from those in other industries, it would be very difficult, as stated by the Indian Tea Association, to fit the plantation labour into the general framework of industrial labour legislation, without creating serious anomalies and compelling a refashioning of the conditions of life and employment on plantations. For example, it would be meaningless under plantation conditions to frame Standing Orders laying down hours of work, conditions of absence from work, etc. It is, therefore, necessary to have a Plantation Labour Code covering all plantation areas. Such legislation should be a Central Act without any provincial variations and without any extensive powers left to provinces, though the rules under the Act should provide for the essential differences between labour conditions in the North and South Indian plantations. The States concerned should be also induced to frame similar legislation in their areas. This legislation should include provisions for establishing Wage Boards, Boards of Health and Welfare, etc.

CHAPTER VI.—SUMMARY AND CONCLUSIONS.

The plantation industry is one of the biggest and most important industries in India. The plantations fall into two well-marked and widely separated groups—those in North India and those in the South. The total area under the chief plantation crops, namely, tea, coffee and rubber is 11,91,738 acres and 10,91,461 persons are employed on them. Tea alone is grown in North India and the area under it is 672,955 acres. The tea industry in North India employs 771,946 workers. South India has all the three crops ; coffee and rubber are, in fact, confined to this area. The area under these crops is 518,833 acres while the total employment is 319,515.

Of the three principal plantation crops, tea is easily the most important. The tea industry is the biggest employer in India and gives employment to 926,461 workers. The area under tea is 836,573 acres. The total capital invested in the tea industry is estimated at about Rs. 50 crores. The value of tea exported by sea to foreign countries in 1942-43 was Rs. 31,64 lakhs, an individual total only exceeded by cotton and jute. Coffee and rubber estates have an area of 206,153 acres and 149,062 acres, and employ about 115,000 and 50,000 workers respectively. Plantations thus play a great part in Indian rural economy.

Assam is by far the most important planting area in the whole of India. It has nearly four and a half lakhs of acres under tea which is 53 percent of the acreage under tea and 38 percent of the total acreage under the three chief plantation crops in India. It employs over half a million workers on its tea gardens. The next important tea planting area is Bengal which has over two lakhs of acres under tea, *i.e.*, 24 percent of the total acreage in India and employs over two lakhs of workers. South India has under tea 163,618 acres or 19 percent of the total area under tea. Mysore and Travancore States have the largest area under coffee and rubber respectively.

Tea planting started first in Assam in the third decade of the last century ; while systematic cultivation of coffee and rubber in South India dates from 1830 and 1902 respectively. The plantation industry owes its inception in India to European enterprise and capital, though now about 25 percent of the area under tea, 75 percent of the area under coffee and about 72 percent of the area under rubber are Indian-managed or Indian-owned. Tea estates generally comprise large areas and belong mostly to Joint Stock Companies. Coffee and rubber are also grown on a large scale basis but they are just as much a small farmer's crop as a regular plantation crop.

Employment.

Unlike other organised industries, plantations employ a large number of women and children, as recruitment is on family basis (except in rubber) and as the work is of an agricultural nature. In tea about 45 percent of the workers are women and in coffee and rubber their percentage is about 40 and 25 respectively. More children are employed in the tea gardens in North East India than in the South. They form about 15 percent of the workers in Assam and about 20 in Bengal, while their percentage is about 10 in South Indian tea estates. Their percentage is about 10 and 4 in coffee and rubber estates respectively.

Most of the labour in tea estates is resident on the estates. Local labour employed is usually less than 5 percent. Coffee and rubber estates employ a large number of local labour.

Recruitment.

Labour in Assam and, to a certain extent, in the Doars and the Terai is recruited from a great distance, or is born of parents who were so recruited. Bihar contributes about 50 percent of the recruits to Assam, the areas next in importance being Orissa and the Central Provinces. Recruitment to Assam is governed by the Tea Districts Emigrant Labour Act, XXII of 1932, and there is no legislation on recruitment in other areas. Even for Assam, the control relates only to the forwarding of the assisted recruits and not to the methods and personnel of recruiting and applies only to the six provinces where notifications under section 16 of the Act have been issued. A controlled emigration area such as any of the above provinces can be converted into a restricted recruitment area by a notification under section 26 and then the methods and personnel engaged in recruiting will also come under control. But at present there is no restricted recruitmetn area in British India. 77 percent of the tea industry in North-East India recruits through the Tea District Labour Association which has been set up by the tea industry for this purpose. It recruits both for Assam and the Dooars, though in normal times there is little or no recruitment to the Surma Valley. The Association recruits labour in seven provinces and 24 states. Recruitment is mostly confined to aboriginals. The average annual recruitment to Assam in the four years ending with 1941-42, which was the last normal year for recruitment, was nearly 25,000. The Association has made suitable arrangements for the forwarding of the recruits from the recruiting areas to Assam. Actual recruitment is largely done by the garden sardars who are remunerated on a commission basis. The total cost of recruitment before the war was about Rs. 100 per recruit which almost equals his annual earnings. The Terai and Darjeeling have permanently settled labour and do little or no recruiting.

In South India labour is recruited from areas which are situated close to the plantations. Recruitment is mostly done through kanganies who are generally drawn from the ranks of estate labourers themselves. The coffee estates and many of the rubber estates employ professional labour suppliers. The Labour Department of the United Planters' Association of Southern India is not directly concerned with the recruitment of labour, but it helps the kanganies in sending up labour and in recovery of debts. The kanganies do not get commission for recruitment as the garden sardars of Northern India do, but they get a commission on the wages of the workers in their gangs. The kangany helps his men in difficulties, advances small amounts to them and acts as an intermediary between them and the manager. The disadvantages of the kangany system, on the whole, outweigh the advantages and the younger generation of the labourers is not in favour of it. The garden sardar has no connection with a labourer after recruitment. It may be broadly stated that, except in Assam, a labourer belongs more to the sardar or kangany than to the estate. It should not be difficult to abolish the kangany system if the Labour Department of the United Planters' Association of Southern India is made a counterpart of the Tea Districts Labour Association in North India.

Pre-employment advances are not normally given to recruits in North India ; but they are a regular feature of recruitment in the South. The system of pre-employment advances was condemned by the Royal Commission on Labour and puts the plantation worker at a disadvantage right from the start.

The assisted emigrant in Assam has been given by the Tea Districts Emigrant Labour Act a right of repatriation at the garden expense after three years' work on a garden. He can also ask for repatriation earlier on certain

grounds or can waive or postpone it. The average number of repatriates during 1939—1944 was 17,589 per year. In South India, where the original plantation crop was coffee, workers are recruited for a period of 9 or 10 months after which they return home. About 60 to 90 percent of the workers return to the same estate.

Freedom of movement and association.

In Assam, the labourer is now legally free to leave his garden and seek employment in any other garden, but, in actual practice, he does not feel that he is free to move. The planters have an agreement which prohibits one manager from deliberately enticing or recruiting labourers from another garden. Again, a labourer is not generally employed without a reference to his former employer. Besides, there is the *chaukidar* one of whose duties is to watch the movement of labourers. There is no free access to workers' houses which are always situated within the garden limits and this is responsible for the continuance of the impression that the workers are not free. In the Dooars, there is a similar agreement among planters about recruited labour, but in the Terai and Darjeeling, where there is practically no recruitment, a labourer is free to go. In South India also there are agreements among planters to prevent crimping. As pointed out by the Royal Commission on Labour, the effect of such agreements, in the absence of any organisation on the worker's side, is to diminish still further the liberty of the worker to dispose of his labour to the best advantage and to add to the restrictions upon his movements.

Inspection of gardens.

Under executive instructions issued by the Assam Government, Deputy Commissioners and Sub-divisional officers are required to inspect each garden within their jurisdiction once in two years, but they are enjoined to devote their attention primarily to satisfying themselves that the provisions of the Tea Districts Emigrant Labour Act are understood and are being observed. These inspections have no binding force and have dwindled of late, due to the preoccupation of these officers with more important matters in war-time. These officers as well as the Controller of Emigrant Labour hardly have a talk with the labourers privately, *i.e.,* without the presence of the manager or supervisor and they collect the necessary information from the managers themselves. In the Dooars, the Civil Surgeon, at least in theory, carries out inspections with respect to the health of the labour force under the Jalpaiguri Labour Act. There is no regular system of periodical inspection of plantations in South India.

Wages and Earnings.

In Assam payment is generally based upon piece rates. There are two kinds of piece work system in vogue, namely, the older and still common *hazira* and *ticca* system and the unit system. The term *hazira* is applied to the daily task as well as to the sum payable for its performance. *Hazira* takes about five hours to complete. After finishing the *hazira*, the worker may stop work or take up another task on the completion of which he earns his *ticca*. The term *ticca* is very loosely used in Assam and does not strictly correspond to overtime work. The tasks vary considerably from place to place, but the wage rates are more or less uniform in a tea circle or district. This uniformity is achieved by agreements among planters. The rates are generally 5 annas for men, 4 annas for women and 2 to 3 annas for children. The whole system of *hazira* and *ticca* has no logical basis and is an anachronism.

The other system is the unit system under which a labourer is not given a fixed task but, up to a certain limit, is allowed to do as much or as little as he likes. A unit is expected to be finished in one hour and the payment for it is one anna.

Plucking is paid for by weight, except in the beginning and the end of the season when a *hazira* is given irrespective of the leaf brought in. Plucking is done largely by women. The rate of payment is usually one anna for 5 pounds of leaf in the Assam Valley and for 8 or 10 pounds in the Surma Valley which generally goes in for coarse plucking. No deduction for dampness is now made in most of the gardens.

In Bengal, the wage payment system is the same as in Assam except that *ticca* is called *doubli* in the Dooars. The *hazira* for men, women and children is 4 annas, 3 annas and 2 or 1½ annas respectively in the Dooars and the Terai while it is higher by an anna in each case in Darjeeling where the task takes more time to finish. Plucking is paid on *hazira* basis in the majority of gardens. Deduction on account of moisture is fairly common.

In South India, both the time-rate system and piece-rate system prevail. The harvesting of the crop in tea, coffee and, to some extent, in rubber is generally paid for by results, and mostly women are employed on such work, except in the case of rubber. All other work is paid for on a time basis. Even time rates of wages are governed by a rough idea of task. The rates of time wages are generally uniform in the various plantation districts owing to agreements among planters. Generally speaking, tea estates pay a higher rate for men, namely, 7 annas than coffee and rubber estates which pay 6 annas. The rates for women are the same in all the three crops, namely, 5 annas. Children get 3 to 4½ annas in tea, 2½ to 4 annas in coffee and 4 annas in rubber estates.

Plucking is paid at the rate of 3 to 4 pies per pound. Deduction from weight of leaf plucked is almost universal in the South Indian tea estates and is a perennial source of complaint by workers. The deduction is about 10 percent. in dry weather and may be even up to 40 percent. during the rains. Deduction is arbitrary and the practice is of doubtful legality and should be discontinued forthwith as in Assam. Crops vary so widely in coffee that the task set and the piece rates are highly variable. In rubber estates, tappers are paid at a piece rate or on a combination of piece rate and daily rate. The piece rate is generally from 8 pies to 1 anna per pound of dry rubber and the daily rate is 6 to 7 annas. If the latex is washed away by rain, the worker gets no wages except in a few estates in Mundakayam where the basic rate is paid.

Most of the tea estates and the large rubber estates have factories. The number of men working in them is very small and they usually get one anna more per day than the field labourer. In pulp houses in coffee estates and in smoking sheds in small rubber estates, a few field labourers are engaged and are not paid anything extra. The curing of coffee is done in curing works far removed from coffee estates.

Allowances.

No allowance or bonus of any kind is given in Assam. A dearness allowance at the rate of 0-1-0 per *hazira* to adults and 0-0-6 to children is given in Bengal plantations. A dear provision allowance of 0-1-0 for adult and 0-0-6 for children per day worked is given by most of the tea and rubber estates in South India. Some estates, especially in the Nilgiris and the Wynaad, pay it at the rate of 8 pies and 4 pies while in most of the coffee estates it is only 6 pies and 3 pies. No dearness allowance is paid in Coorg.

War outturn bonus is given by many tea and rubber estates in South India with a view to secure regular attendance of workers. It is paid at the rate of not more than 8 annas per week for 6 days' work in tea estates and for full 7 days' work in rubber estates. It is reduced to half for 5 days' work. Some estates give it on a monthly and some on an annual basis, the attendance required being 22 days in a month and 220 days in a year. Children are paid at half the rate for adults. Not many persons earn this bonus. It is not generally given in coffee estates.

Other concessions in South India are a blanket allowance and travelling expenses payment of which is usually contingent on the completion of a certain number of days' work, usually 200. The usual practice is to pay one way expense and that too only in tea estates.

Concessions.

The consideration of wages in plantations cannot be complete without a reference to the concessions that are offered to the labourers in addition to the cash wages. The concessions are usually—

(a) land for cultivation (except in South India),
(b) free housing,
(c) medical attendance and maternity benefits.
(d) fuel and grazing,
(e) cheap foodstuffs and clothing.

The concession of getting land for cultivation from gardens at a cheap rent is valued most by labourers who are mainly agriculturists. The concession is small as each adult worker has less than ½ acre in North-East India and it is unevenly distributed. It is a cheap method of holding labour. As regards free housing, the housing provided is not generally expensive and as labour is recruited from distant places and the estates are situated in secluded areas, the plantation industry has rightly taken upon itself the burden of providing free housing to its labour. The tea industry, especially in Assam, has spent large sums of money in providing medical facilities and anti-malarial measures for its labour. Free fuel and grazing are minor concessions and cost nothing to estates. Both the Assam Labour Enquiry Committee, 1921, and the Royal Commission on Labour have stated that no monetary value can, or should, be placed on the concessions.

The concessions which has become most important at present is the concession of cheap foodstuffs in view of the very high prices of rice and other foodstuffs and their occasional unavailability in war-time. In Assam, it was usually complained that the ration allowed was not enough, that it was linked with attendance and that it was not always given in full, even when earned, being subject to availability of stock. The ration is not given to non-working children. The monthly *per capita* cost of the foodstuff and cloth concession in the sampled gardens in Assam came to Rs. 5-8-6 in 1944 and the Indian Tea Association states that the total value of the concessions in Assam in 1943 was roughly Re. 0-10-9 for every rupee of total wages. The monthly *per capita* cost of these two concessions in some of the sampled gardens in 1944 was Rs. 3-5-5 in the Dooars, Rs. 2-1-0 in the Terai and Rs. 1-12-0 in Darjeeling. According to the Indian Tea Association the total value of these concessions in 1943 was Re. 0-9-9 for every rupee of the total wages in the Dooars, Re. 0-3-9 in the Terai and the Re. 0-14-3 in Darjeeling. In South India, the United Planters' Association of Southern India estimates the cash value of these concessions per day in 1944 at Re. 0-2-3 to Re. 0-4-3 per man, Re. 0-1-9 to Re. 0-3-3 per woman and Re. 0-1-6 to Re. 0-2-9 per child.

Absenteeism.

Absenteeism is about 25 percent. in Assam, about 30 percent. in Bengal and about 17 percent. in South India. Absenteeism is, to a certain extent, inevitable in plantations in Assam and Bengal where the workers have subsidiary occupations, especially private cultivation. In all plantation areas, it is also due to debility caused by malaria and hookworm infection and, at present, by malnutrition.

Earnings.

The average monthly cash earnings of settled labourers on the books are Rs. 9-10-3, Rs. 7-13-1 and Rs. 5-14-10 per man, woman and child respectively in the Assam Valley and Rs. 7-13-7, Rs. 5-10-6 and Rs. 3-12-10 in the Surma Valley. Another method employed to ascertain the earnings is to divide the total monthly earnings by the average daily working strength. On this basis, the average monthly wages of settled labourers are Rs. 12-6-4, Rs. 10-12-3, and Rs. 7-9-1 per man, woman and child respectively in the Assam Valley and Rs. 10-5-4, Rs. 8-6-1 and Rs. 5-4-0 in the Surma Valley. The actual monthly earnings of a worker lie somewhere between these two figures in view of the 25 percent. absenteeism and the impracticability of getting him not to absent himself even on a single working day. The average daily cash earnings are Re. 0-8-2, Re. 0-6-10 and Re. 0-4-8 per man, woman and child respectively in the Assam Valley and Re. 0-6-7, Re. 0-5-2 and Re. 0-3-2 in the Surma Valley. The earnings of *faltu* labour are slightly less. Though the wage rates have not been changed for several years past, the daily wages show an increase of nearly 35 percent over 1939 figures, due to the policy of the Indian Tea Association of making more work available to labour to meet the increase in the cost of living.

The average monthly cash earnings, including dearness allowance, on the basis of dividing total monthly earnings by the average daily working strength are Rs. 13-8-0, Rs. 8-12-6 and Rs. 3-14-11 in the Dooars, Rs. 12-4-8, Rs. 9-12-10 and Rs. 4-9-1 in the Darjeeling revenue district per man, woman and child respectively. The actual earnings will be less than this in view of the 30 percent. absenteeism in these areas. The daily average cash earnings are Re. 0-8-2, Re. 0-5-5 and Re. 0-2-5 in the Dooars and Re. 0-7-6, Re. 0-6-1 and Re. 0-2-11 in the Darjeeling revenue district.

The rates of time wages in South Indian plantations are given above. Mostly men are on time rates while women are on piece rates. As absenteeism is about 17 percent., the average monthly cash earnings including the dearness allowance of men in tea estates would be Rs. 10-12-0, in coffee estates Rs. 8-11-9 and in rubber estates Rs. 13-2-0 as tappers work all days in the week. The average monthly cash earnings of women on plucking are about Rs. 11 and about Rs. 8 in picking in coffee estates. The average monthly cash earnings per worker in the South Indian plantations in 1943-44 were Rs. 10-3-4.

The cost of living has gone up by at least 200 percent. in the plantation areas in North-East India since 1939, while the total earnings of plantation workers including the value of foodstuff and cloth concession have been only nearly doubled in them. In South Indian plantations, the cost of living has gone up by 100 percent. while the earnings went up by 50 percent. in the case of men and about 70 percent. in the case of women who were getting very low wages before the war. The real wages of the low paid plantation workers have thus gone down since the beginning of the war.

There are no fixed hours of work in North Indian plantations, the labourers usually working from about 8 a.m. to 2 or 3 p.m. In South India, the hours of work in tea and coffee estates are from 8 a.m. to 5 or 6 p.m. with an interval of an hour which is not often allowed to be enjoyed. The tappers in the rubber estates usually work from 6 a.m. to 1 or 2 p.m. Sunday is usually a holiday in tea and coffee estates, except in times of heavy flush. Tappers have no weekly holiday. Some gardens in Assam give two or three paid holidays in a year, but there are no paid holidays in other areas.

The wage period varies from garden to garden in North India. Some pay once a week, some pay once a fortnight and some others pay once a month. In South India, the most common system in all plantations is the annual settlement system, under which the labourer is credited with his weekly earnings, debited with the cost of rice and cash advances and his balance is carried forward for disbursement after clearing his dues to the kangany at the end of 10 months which is generally the employment period. Only a few estates settle wages every month or every week. The annual settlement system was condemned by the Whitley Commission. The balances in favour of the labourers at the time of the settlement are often illusory as they have to pay their debts to the maistry and the shopkeeps out of them.

Housing.

Resident labour is housed free by the plantation industry. In North India, the houses are either built in barrack lines or are clustered about as in a village. There is quite an appreciable number of back-to-back lines in Assam where 90 percent. of the houses are *kutcha*. The houses are one-roomed and have generally no windows and verandahs. The average size of a house is 15′ × 12′, and each family gets a separate house except childless couples. The houses in the Dooars and the Terai are similar to those in Assam. In Darjeeling the houses are built of wooden plank walls and corrugated iron sheet roof, but those built since 1939 are like the ones found in other areas in the North.

In South India, houses are only built in barrack lines, each barrack consisting of 5 to 10 houses. The houses are generally *pucca*. Old houses are usually 10′ × 12′ and are one-roomed. The lines in tea estates are generally better than in coffee or rubber estates. Recently built houses in some of the tea estates are decent; are in blocks of two and have a bathroom. The recent houses in rubber estates have generally one living room and a kitchen. The worst types of quarters are found in coffee estates where the labourers are housed worse than cattle. Back-to-back barrack lines built 40 or 50 years ago are still used. The rooms are 10′ × 10′ or 10′ × 8′. The walls are of mud or of grass and bamboo plastered over with mud and are full of holes and crevices. The doors are low and narrow. The only redeeming feature is a few new blocks of two houses built since 1943 by the Consolidated Coffee Estates in South Coorg.

The worst feature of housing in South India is over-crowding. Even according to the planters, the average accommodation provided is one room for 4½ to 5 workers, who share it with their dependents. It was common to find 8 to 10 persons in a room. Where kitchens are built, the living room and kitchen are allocated to two different families. Two or three fire places in the living room is a common sight. Living together in promiscuity has a blighting effect on the morality of labour.

Boards of Health and Welfare suggested by the Whitley Commission have not yet been established and no standards in respect of housing have been laid down by the Governments concerned. Many planters in South India urged this as a reason for not going ahead with new constructions. Two types

of quarters which will suit all elevations and climatic conditions met with in South India are given in this report.

Water supply is generally adequate in all areas though the most usual source is still the open surface wells or streams. Tube-wells and piped water supply were seen in a few estates.

The position about latrines is extremely unsatisfactory in North Indian plantations where 90 percent. of the gardens have no latrines. The position is much better in South Indian tea estates many of which provide latrines either of the bore-hole or trench type. Latrines are not generally found in coffee and rubber estates. In view of the very high incidence of hook-worm among plantation labour, the necessity of providing adequate latrines cannot be over-emphasised. The myth that the labour does not use latrines is exploded by he experience of South Indian tea plantations. Labourers will use latrines provided they are kept clean and provided that a separate latrine is given to each family. Bore-hole latrine may prove a solution to the problem of providing conservancy for plantation labour. A few gardens both in Assam and South India have provided even septic tank latrines for their labour. A design for such latrines suitable for plantations is given in this report.

Health and Welfare.

Judged by the birth and death rates, the South Indian plantations are healthier than the North Indian ones. There has been a distinct change for the worse in both these rates everywhere which appears to be due to mal-nutrition. Mal-nutrition became specially noticable among non-working children in Assam which led to the free feeding of such children by many gardens. This salutary practice is also found in the Dooars, to a smaller extent in Darjeeling, and in the European-owned tea estates in South India but is not found in the Terai, and in coffee and rubber estates.

Free medical aid is given to workers and their dependents in all plantations. In Assam most of the gardens have Assistant Medical Officers, though some, mostly Indian-owned, have compounders. Medical Officers visit the garden dispensaries under their control once a week or fortnight. Many gardens have no indoor accommodation and where it exists it is generally most uninviting. There are very few trained nurses and midwives and no women doctors or health visitors. Confinements generally take place in lines. There are only two central hospitals, one of which is the famous Labac Hospital. Medical aid is poor in Bengal plantations compared to Assam. In South India medical aid is much better in the chief tea areas. There are 11 group hospitals including the General Hospital at Munnar which is very well equipped. In every estate under a group hospital there are well-equipped dispensaries in charge of experienced compounders, called apothecaries. The group hospitals are staffed with nurses and midwives and one has also a woman doctor. Large coffee and rubber estates have hospitals ; but other estates do not have even a dispensary and only stock quinine and some tinctures for first-aid. Serious cases are sent to the nearest Government hospital.

The common ailments in plantations are malaria, bowel complaints, hook-worm infection and respiratory diseases. Phthisis is very common in Darjeeling.

There is nothing definite about giving sickness benefit in plantations, except that if the worker is an in-patient, he is fed free. This is not of much help in coffee and rubber estates as they have seldom any facilities for indoor treatment.

There is also a great deal of variety in the payment of maternity benefit. The total benefit ranges from Rs. 14 to Rs. 25 in Assam, from Rs. 10 to Rs. 18-8-0 in the Dooars, and from Rs. 2-8-0 to Rs. 19-8-0 in the Terai and Darjeeling. It is much smaller in South India and is not so common as in the North. The amount usually varies from Rs. 2 to Rs. 10 in tea estates. The payment in some estates is conditional on the child being alive six months after the birth or at the time of the annual settlement. The benefit is still less in coffee estates and most of the rubber estates do not pay it at all. There is no Maternity Benefit Act covering plantation except in Assam where it has become operative only from the 1st September 1945. The minimum cash benefit under the Act is Rs. 14.

The most important aspect of public health work in tea estates is the organisation of measures to prevent malaria which causes most of the illness. Many estates are members of the Ross Institute, India Branch, and carry out anti-malarial measures under the guidance of Dr. Ramsay, Principal of the Branch. Biological methods of control, namely, shading and flushing have produced spectacular results in the reduction of malaria in the tea districts of North and South India. Of course, the standard of work is not the same in all gardens. The work has also suffered severely as a result of the war and on several gardens nothing is virtually done at present. Very little anti-malarial work is done in coffee and rubber estates.

The total average medical expenditure including that on public health and maternity benefit was Rs. 9-5-0 per head in the Assam Valley and Rs. 8-1-0 in the Surma Valley in 1937. It is about the same in the Dooars. It was about Rs. 3 in the Darjeeling district and Rs. 5 in South India in 1944.

Education.

The position about education of children in plantations is very disquieting. Assam gardens had 392 schools with 12,122 pupils in 1944, while those in the Dooars had 149 schools with 5,130 children in 1943 ; majority of the children belong to the Indian staff. There were 117 schools in the member gardens of the United Planters' Association of Southern India in 1941. The chief obstacle to the progress of education according to the planters is the apathy of the parents who prefer to send their children to work in gardens rather than to schools. This attitude may be due to the fact that the parents are anxious to supplement their meagre income by the earnings of their children.

Even though the plantation industry employs a very large number of women, there are practically no creches for children. A few tea estates in South India have some provision or other for this purpose.

Indebtedness among labourers to money lenders could not be ascertained in North-East India ; to gardens it is negligible. It is general in South India, probably on account of the annual settlement system. There is a good deal of drinking among plantation labour, though it is largely confined to the home-distilled liquor in North India. Home distillation has, however, gone down owing to the scarcity of rice.

Welfare.

Apart from the welfare activities described above, such as free feeding of non-working children, there are very few welfare activities on the plantations at present due to war conditions. Foot-ball and hockey are hardly noticeable now as most of the European assistants who took keen interest in organising sports have enlisted. Generally speaking, the plantation labourer, like the villager, is not organised in his spare time. Cinema shows are also rare now. In North India, entertainments such as ' nautch ' are generally arranged at Kalipuja time and most of the gardens contribute towards the expenses,

There are a few small cattle-breeding societies in the Assam gardens, but there is nothing to compare with the big and flourishing society in the Anamallais.

Most of the gardens in North-East India provide for their old and infirm labourers by forming them into *latera* gangs. Such persons are generally paid 3 to 4 annas a day or get free rice. In South India, old workers do not return to the plantations after their annual settlement. Pension is not usually given anywhere to old labourers.

There is no doubt that noticeable improvement has taken place in some of the labour conditions on plantations since 1931 when the Royal Commission's report was published. Housing, medical facilities, and water-supply have improved substantially—mainly in tea estates. There has, however, been no virtual improvement in education and organisation of labour and in North India, in cash wages. Progress has been least marked in coffee and rubber estates. Out of the five main recommendations of the Commission, namely, abolition of the Assam Labour and Emigration Act, 1901 and enacting another measure permitting a greater measure of freedom in the system of recruitment, establishment of a wage-fixing machinery in Assam plantations, appointments of Boards of Health and Welfare, application of the Payment of Wages Act and provision to secure public contact with workers' dwellings, only the first has been implemented.

Employers' and Workers' Organisations.

A remarkable feature of the plantations is that while the employers are well-organised and powerful, economically as well as politically, the workers are unorganised, illiterate and helpless. The chief organisations of the planters are the Indian Tea Association in North India and the United Planters' Association of Southern India in the South. In the whole of Assam, there was, until recently, only one union of garden labourers in the Cachar district. There are no unions in other plantation areas. Even then, several strikes have taken place in gardens in North-East India while no information on this subject was available in South Indian plantations.

Conclusions.

On the whole, labour conditions in South Indian tea estates are better than in the North. This may be due to the later planting of tea in South India, to the higher price which South India tea, generally grown on elevated regions, fetches and to the absence of cost of recruiting. Conditions are better in respect of cash wages, housing, medical facilities and education. Gardens in North-East India are, however, better in respect of wage period, maternity benefit and absence of overcrowding in labour quarters and of an intermediary in the shape of the kangany.

Among the three principal plantation crops in South India, labour conditions in tea estates are much better than in coffee or rubber estates. Wages in most tea estates are higher, housing conditions are better and schemes of welfare work such as medical aid and free feeding of non-working children are more common in tea estates than in coffee or rubber estates. In the tea estates, unlike in rubber and coffee estates, the professional recruiter has practically disappeared and payments to the workers are made direct and not through the kanganies. Coffee estates are the worst offenders in the matter of insanitary and inadequate housing, indirect payment and lack of welfare measures of any kind. It is true that the financial condition of the tea industry has been better than that of coffee or rubber. Coffee had a bad time from 1931 to 1941 which undoubtedly accounts for the worst labour conditions in that industry. But

rubber prices have been comparatively better since 1934 when the International Rubber Regulation Scheme was introduced and there is no reason why labour conditions in this industry should not have been improved.

The first thing that attracts attention about plantations is the low cash wages paid to the labourers. The inadequacy of cash wages has been criticised by both the Assam Labour Enquiry Committees and by the Royal Commission ; but the wage rates remained unaltered, even in war-time, in North India and only slightly altered in the South. It is essential that cash wages should be adequate. The standard of living of plantation labour is appallingly low and their real wages have fallen during war as the concessions given have not kept pace with the increase in the cost of living. Most of the concessions which are adduced to justify the low wages are no concessions in the circumstances of the plantation industry and the concession of cheap foodstuff and cloth which alone can be taken into consideration while assessing wages will, and should, disappear when normal times return.

In addition to men, women and children too work in plantations and this is justified on the ground that work in plantations is essentially of an agricultural nature. " A system of wages which requires the worker to depend upon the earnings of his wife and children or upon a subsidiary industry just in order to earn the *necessaries* of life not to talk of *decencies*, *luxuries* and *savings*, can scarcely justify its existence from the point of view of social welfare or national economy "[1]. In any case, the employment of children below 12 should be prohibited immediately by legislation. Children below this age are not allowed to work on plantations in Ceylon under section 56 of the Children and Young Persons Ordinance No. 48 of 1939.

As the labourers are not likely to develop the spirit of collective bargaining for some time, the establishment of Wage Boards is essential in plantations. The kangany system and the annual settlement of wages are not in the interests of labour and should be abolished.

Much improvement is necessary in housing condition. There is no objection to *kutcha* houses in North-East India, as stones are not available and as Assam is liable to earthquakes though these drawbacks can be overcome by reinforced cement concrete, but even the *kutcha* houses can be improved and approximated to those of the Indian staff. The housing in coffee and rubber estates requires immediate improvement. Overcrowding in quarters in South Indian plantations is a grave evil, and as recruitment is on a family basis each family should have a separate house.

Sanitation is most unsatisfactory in gardens in North India and in coffee and rubber estates. In view of the very high incidence of hookworm infection among plantation labour, it is in the interests of the planters themselves to provide adequate latrines for their labour. Laziness is not a mental offence, but a state of disease in most cases ; the chief cause of laziness among plantation labour is the hookworm infection.

Medical facilities require improvement, especially in small tea estates and in coffee and rubber estates. Compounders and apothecaries should be replaced by assistant medical officers. Establishment of group hospitals at convenient centres will be a welcome step. Appointment of women doctors, midwives and health visitors will help the large number of women labourers and induce them to go to the hospital for confinement.

Absence of adequate facilities for education of children is another disquieting feature of the plantations. As long as children are profitable both

[1]R. K. Das : Plantation Labour in India, p. 181.

to planters and parents alike, there is scarcely any chance of success for voluntary education, though compulsory education for plantation areas alone might not be a practical proposition. In his speech at the sixty-fourth Annual General Meeting held on the 9th March 1945, Mr. H. C. Bannerman, Chairman of the Indian Tea Association, observed : " However great the difficulties arising out of education may be, the dangers arising from ignorance are far greater to employer and employed alike ". If the standard of living of the plantation labour is to be raised, their children will have to be given education in its broadest sense and accustomed to better things.

The best safeguard for labour is ultimately the evolution of trade unionism and the introduction of collective bargaining, but establishment of trade unions in plantation areas is not practicable at present. Until the labour is able to stand on its legs, it is necessary for the Central Government to protect their interests as they have done in the case of Indian labour in plantations in Ceylon and Malaya. It is necessary for this purpose to enact a Central Plantation Labour Code which will provide for the establishment of Wage Boards and Boards of Health and Welfare and lay down minimum standards for housing, medical facilities, education, etc. Periodic inspection of estates is of importance in the present state of labour. Appointment of Labour Welfare Officers will go a long way to help the labour. An essential step in improving labour conditions is to secure public access to labourers' quarters, as recommended by the Royal Commission. The institution of a provident fund scheme for estate labourers also requires immediate consideration so that, when they retire in old age, they may not be a burden to their poor relatives. The system of paying commissions to Managers often tends to curtail expenditure on labour welfare. It would be worthwhile abolishing the system and increasing the salary of the Managers.

It is no argument to say that the labourers are better off in plantations than they would have been in their home villages as this only amounts to exploiting their economic helplessness. That they are seemingly happy is also no argument as this happiness is based on their ignorance of anything better and on their helplessness to improve their lot.

That the planters have done a lot for their labour cannot be denied. The plantation industry has provided employment to lakhs of aboriginal people and has improved their standard of living, even if it be to a small extent. The above account of labour conditions is not intended as a criticism of the Indian Tea Association or the United Planters' Association of Southern India which have generally advocated a liberal policy towards labour, or of those enlightened Managers who have done very good work on their gardens. These Associations can only recommend but cannot compel performance. Moreover, there are gardens outside these Associations. It must also be admitted that generally labour conditions in Indian-owned estates are worse than in the European-owned. The major problem that has to be tackled in the plantation industry is to even labour conditions, *i.e.*, to bring the standards on many smaller estates to the level, as far as possible, of those on the more advanced. This object can be achieved by imposing a cess on plantations as has been done in the case of coal mines.

Poverty, ill-health and illiteracy which, according to Mr. Harold Butler, are the three great enemies of progress are " really inseparable, as ill-health is mainly the accompaniment of poverty and illiteracy is largely the cause both of poverty and ill-health. All these factors are, however, within the range of human control and to a large extent within the power of the individual employer

to eliminate"[1]. The planters are especially in an advantageous position to tackle these factors and have a wonderful opportunity of developing the moral and material well-being of their labour, but they have, on the whole, failed to do so in the past, and there is no guarantee that they will succeed in the future. Government control to improve and level up labour conditions in plantations is, therefore, essential.

The economic position of the industry must, of course, be taken into account while considering the question of improving conditions of labour employed in it. It will not be denied even by the planters that the economic condition of all the three plantation industries has considerably improved owing to international agreements in the case of tea and rubber and increase in domestic consumption in the case of coffee. It is likely that the present prosperity may not continue after the lapse of these agreements, though there need be no fear for the tea industry which has a vast potential market in India itself. Compared to the average consumption of 9½ pounds per head in U. K., India at present consumes less than one-third pound per head. As no coffee is allowed to be imported into India and as domestic consumption is expanding, coffee can be relied upon to pay a fairly good return on investments. It is for the plantation industry to devise ways and means of meeting the inevitable increase in cost involved in giving a fair deal to labour. With the help of its scientific research stations, it can improve the methods of cultivation and manufacture, can introduce methods of rationalisation, etc. Mr. J. R. N. Pryde, the then Chairman of the United Planters' Association of Southern India in his speech at the Annual Meeting in 1944 pleaded for unification of research for tea, coffee, rubber and cardamoms to increase in efficiency in production to meet the increase in the costs which the post-war programmes for labour were likely to involve. A new process of tea manufacture which by-passes most of the processes hitherto regarded as essential and makes the finished product into tablets has been just evolved at the Tea Research Institute in Ceylon.[2] If an industry cannot ensure a minimum standard of living according to modern conceptions to its workers, it has hardly any justification to exist.

The age-long apathy even of the plantation labour is disappearing. The new ideas which are pulsating in the hearts of Indian labour find an echo in the hearts of plantation labour also and it would be idle of the planters to think that they will be able to hold their labour in their present condition much longer. If there are no more visible expression of the new spirit than mere grumbles and a few small sporadic strikes, it is entirely due to lack of organisation among plantation labour. Much water has flowed down the Brahmaputra since the terrible description of the plantations in Assam by the British Trades Union Congress delegation (Messrs. Purcell, M.P., and Hallsworth) in 1928 that "in Assam tea the sweat, hunger and despair of a million Indians enter year by year"[3]. Though the description no longer holds good now, there is plenty of room for improvement of labour conditions in all the plantation areas. The plantation industry can hardly hope to continue much longer in its present happy position in which it is neither controlled by Government nor limited by the activities of trade unions.

D. V. REGE.

SIMLA,
The 20th October, 1945.

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[1] *Harold Butler : Problems of Industry in the East (I.L.O.)*, p. 23.

[2] *Capital : August 9, 1945, p. 209.*

[3] *Report on Labour Conditions in India. (Published by the Trade Union Congress* General Council, London), p. 36.

APPENDIX I

Minor Tea Plantations in North India.

Besides Assam and Bengal, there are tea plantations in the Punjab, United Provinces and Bihar in North India. These plantations are small and have no major labour problems. In this connection the Whitley Commission observed as follows :—

> " Labour is recruited locally and the wages paid are governed by local considerations and the close organisation among employers, characteristic of other planting areas does not exist "[1].

The employers in the United Provinces and Bihar, however, seem to have organised themselves since then as estates having about 56 per cent. and 70 per cent. of the tea acreage in the United Provinces and Bihar respectively are now members of the Indian Tea Association.

No detailed investigation was made into the labour conditions of these areas except by a Supervisor in 9 estates in Kangra Valley and in 10 estates in Dehra Dun. The following information about these areas, based on this investigation and information received from Government officers has been included in this Appendix with a view to make the report on labour conditions in plantations as comprehensive as possible.

These plantations are situated in the Kangra Valley and the Mandi State in the Punjab, in the districts of Almora, Garhwal and Dehra Dun in the United Provinces and of Ranchi and Purnea in Bihar. They comprise about 20,000 acres which form only 2.4 per cent. of the total acreage under tea in India. All the tea estates in the Kangra valley are owned by Indians. The following table compiled from the statistics furnished by the Director-General of Commercial Intelligence and Statistics gives the distribution of the plantations in these areas in 1942 :—

TABLE 111.

Number and Area of plantations, 1942.

Province and District		Number of plantations	Planted area (acres)
Punjab :	Kangra	2,540	9,549
	Mandi State	10	311
United Provinces :	Almora	17	901
	Garhwal	6	494
	Dehra Dun	25	5,045
Bihar :	Ranchi	19	1,711
	Purnea	5	2,004
	Total ..	2,622	20,015

Employment.

The following table compiled from the same source shows the employment in these tea gardens in 1942.

TABLE 112.

Employment in minor tea gardens in North India, 1942.

Province and District		Persons employed (daily average)			Total
		Garden labour (permanent)	Outside labour (permanent)	Outside labour (temporary)	
Punjab :	Kangra ..	1,204	3,113	6,781	11,098
	Mandi State ..	23	90	130	243
United Provinces :	Almora ..	365	187	262	814
	Garhwal ..	34	45	79	158
	Dehra Dun ..	1,603	507	754	2,864
Bihar :	Ranchi ..	34	502	730	1,266
	Purnea ..	1,723	17	..	1,740
	Grand Total ..	4,986	4,461	8,736	18,183

[1] Report of the Royal Commission on Labour in India, p. 399.

The extent of employment in the estates surveyed in Kangra and Dehra Dun districts is shown in the following table :—

TABLE 113

District	Area to which employment refers	No. of workers in 1944			Total
Kangra ..	.. 2,394 acres	1,057	295	330	1,682
Dehra Dun	.. 3,979 acres	925	986	231	2,142

Employment of Women and Children.

In Kangra most of the able-bodied adult men have joined the fighting ranks or have taken up manual work in the training camps at Palampur. Only aged persons, infirm adults and women and children are left in the villages. The fittest of the adult workers undertake to cultivate their lands and work in tea gardens in spare hours. The majority of the workers engaged in plucking tea leaves consist of women and children.

In Dehra Dun women are employed for plucking as well as for pruning. Actually the number of women employed is more than that of men. Children are also largely employed. In Almora, however, women are not generally employed in plantations but nearly a fifth of the workers are children. In Bihar most of the workers are women.

Temporary and Permanent workers.

Unlike in other planting areas, only a small percentage of the workers are permanent and resident on the estates. Their percentage is only about 10 in Kangra Valley while it is 57 in Dehra Dun and 30 in Almora. The temporary and casual workers come from adjacent villages and return home after work. In Bihar most of the workers are reported to be temporary and to come every day from their villages.

Recruitment.

The bulk of the labour is drawn from adjoining villages through private servants of the owners and no systematic recruitment is done. No pre-employment advances are given except in Kangra where they amount to Rs. 10 to Rs. 30. The advance is recovered in easy monthly instalments. Aboriginals form the main labour force in Bihar.

Turnover and Absenteeism.

Labour turnover had been high during the years of the war due to the workers leaving employment in the estates for enlistment or work under military contractors. In Kangra labour turnover was 15 per cent. in 1939 but has increased to 25 per cent. in 1944. In Dehra Dun labour turnover in 1944 was about 30 per cent.

The percentage of absenteeism in 1944 was 15 in Kangra and 9 in Dehra Dun. The causes of absenteeism are sickness, social events such as marriages and, mainly, agricultural work in their fields in the home villages.

Wages.

In Kangra wages are paid solely on time rates for all kinds of work in tea gardens. Wages are not paid on a uniform scale throughout the valley. The following table shows the rates of wages in 1939 and 1944 for different kinds of work in three important estates. It will appear that the wages paid in Holta Tea Estate are lower than in the other two estates. This is due to the fact that the majority of workers in this estate live in quarters provided by the employer and supplement their income by cultivation of land belonging to the estate.

TABLE 114

Rates of Wages in Three Estates in Kangra Valley in 1939 and 1944

Category of Labour.	Bundla Tea Estate.		Sungal Tea Estate		Holta Tea Company	
	1938	1944	1939	1944	1939	1944
	Rs. A. P. per month	Rs. A. P. per month	Rs. A. P. per month	Rs. A. P. per month	Rs. A. P. per month	Rs. A. P. per month
FACTORY LABOUR.						
Engine Driver	28 0 0	30 0 0	16 0 0	25 0 0	18 0 0	25 0 0
Fitter	27 0 0	1 10 0 per day	..	..	..	..
Tea maker	7 0 0 to 9 0 0	0 8 0 per day	6 0 0 to 8 8 0	12 0 0 to 13 0 0	0 3 6 to 0 4 0 per day	9 0 0 to 10 0 0
Women (for sorting tea) ..	4 0 0 to 4 8 0	0 5 0 per day	0 2 0 per day	0 4 0 per day to 0 5 0	0 3 0 per day	0 4 6 per day
Children	3 0 0 to 3 8 0	5 0 0 to 6 8 0	..	..	..	..
GARDEN LABOUR.						
Jamadar	22 0 0	28 0 0	18 0 0	20 0 0	..	..
Chaudri (in charge of gang) ..	11 0 0 to 12 0 0	16 0 0 to 18 0 0	8 0 0 to 11 0 0	14 0 0 to 15 0 0	7 0 0 to 8 0 0	10 0 0 to 12 0 0
Assistant *Chaudri*	7 8 0	12 8 0	6 0 0 to 8 0 0	10 0 0 to 12 0 0	..	..
Men (for hoeing)	6 0 0	11 0 0 to 12 0 0	0 2 6 to 0 3 3 per day	0 6 0 per day	0 3 0 per day	0 5 0 per day
Women (for plucking)	3 0 0 to 4 8 0	0 5 0 per day	0 2 0 per day	0 4 0 to 0 5 0 per day	0 2 6 per day	0 4 0 per day
Children (for plucking) ..	3 0 0 to 4 0 0	5 0 0 to 8 0 0	0 1 6 to 0 2 0 per day	0 3 0 to 0 4 0 per day	0 2 0 per day	0 3 0 per day

In Dehra Dun the supervisory staff and tindals are paid on a monthly basis. In six of the surveyed gardens permanent men workers are paid on daily rates : in four estates at 6 annas per day and in two at 9 annas. Casual workers get about 10 to 12 annas a day, as they do not get any dearness allowance and land for cultivation at a concession rate from the estates. In the remaining four estates men workers are paid at a monthly rate of Rs. 10 to Rs. 12. Women are paid on daily rates at 3 to 6 annas and children 3 to 5 annas. Pluckers are paid on a piece basis at the rate of 6 pies per lb. of green leaf plucked.

In Almora most of the estates pay the workers on a monthly basis. Generally the basic rate is Rs. 8 per month for men and Rs. 3 or Rs. 3-8-0 for children. No women are employed. The workers work for 6 hours a day. Sundays are holidays. A worker, however, can choose to work on Sunday and claim another day as holiday.

In Bihar most of the work is done on contract basis and the daily earnings vary from annas 6 to annas 12. The Piska Tea Company pays the following wages :

Factory Labour :	.. ..	Men : 8 annas per day. Women : 6 annas per day.
Hoeing :	. .. ..	4 annas for 25 nals.
Plucking :	.. .. ..	9 pies per seer.

Overtime is paid at the rate of ½ anna per hour.

The basic wages in all districts, it appears, have increased about 50 per cent. as compared to 1939.

Allowances and Bonuses.

In Kangra Valley only one estate pays dearness allowance of 12½ per cent. of the workers' earnings. In Dehra Dun 9 out of the 10 estates surveyed pay dearness allowance. Three estates pay dearness allowance only to monthly-rated workers at Rs. 5, Rs. 6 and Rs. 11 respectively. Another estate pays Rs. 6 for tindals and Rs. 5 to regular workers. Three other estates pay dearness allowance of 4 annas and 2 annas per day to men and women workers respectively. One estate pays dearness allowance of As. 2 per day only to hoers while the ninth pays dearness allowance only to *beldars* and tea makers at Rs. 1-8-0 per month for 10 days' attendance and Rs. 2 for over 10 days. Casual workers and pluckers are not paid any dearness allowance. In Almora and in Bihar, it does not appear that any dearness allowance is paid.

In Kangra pluckers get a bonus of 3 pies per lb. of leaf plucked over and above the prescribed task for the day. In Dehra Dun many of the estates give annual bonuses to the workers. In one estate 6 per cent. of the nett profits is distributed among those workers who put in a minimum of 180 days' work as bonus. For 1943 the average amount came to Rs. 60 per worker. Three estates give a bonus of one month's wages, but two of these estates give the bonus only to permanent time-rated workers. A more common method is to link the bonus to attendance and the amount of the bonus varies with the number of days of work put in. In Almora no bonus is given to the workers.

Deductions.

Tea leaf is weighed in the baskets on weighing machines, or on spring balances. Deduction for dampness is made at 10 to 20 per cent. during wet weather. No fines are imposed.

Wage Period.

The wage period is in all districts one calendar month and wages are paid generally before the 7th of the following month. In some estates occasionally considerable delay occurs before wages are paid. It was said that in one estate in Almora only half the monthly wages are paid at the end of the month, the remaining half being paid only at the end of the season. In Dehra Dun is some estates pluckers are paid daily.

There is no uniformity in the rates which vary widely between one district and another and even between one estate and another in the same district.

Subsidiary Income.

One remarkable aspect of labour in these plantations is that the workers do not depend entirely on the wages obtained from the plantations for a living. They all have land to cultivate and agriculture forms a good source of subsidiary income for the workers. The land may be their own in the home village or taken on lease from the estate they work in.

Working Conditions.

Generally the hours of work are 8 to 9 in Kangra, 8 in Dehra Dun and 6 in Almora. In Kangra and Dehra Dun work starts at 9 or 10 a.m. in winter and finishes by 6 p.m. with an hour's interval in some gardens at mid-day. In summer work begins by 7 or 8 a.m. and finishes by 6-30 or 7 p.m. with a recess at mid-day from 12 to 2-30 or 3 p.m. The spreadover in summer, therefore, is about 11 hours.

Leave.

In Kangra only one estate gives leave with pay to workers at the discretion of the Manager. In Dehra Dun 6 estates out of the sampled 10 give annual leave with pay and 9 sick leave with pay. The leave, however, is generally granted only to permanent workers. The period of ordinary leave is 10 to 15 days and sick leave 15 to 23 days. In two estates, the period of sick leave is at the discretion of the manager.

Housing.

Only the permanent workers are given quarters in the estate. In Kangra nearly 10 per cent. of the workers live in quarters provided by the planters. The quarters are mostly *kutcha* one room tenements with mud or brick walls and corrugated iron and slate roofs. The rooms are generally 14 ft. × 14 ft. without windows. On an average 4 to 5 workers live in every room. In Dehra Dun about 50 per cent. of the workers live in quarters provided by the estates. The quarters are *kutcha* with mud walls and thatched roof. Some have corrugated iron roofs. The rooms are generally 12 ft. × 12 ft. or 12 ft. × 10 ft. Some quarters have a separate kitchen room attached. In Almora a few estates have quarters for their workers. They are double storeyed and are built of stone. They have a kitchen room attached behind.

Water for drinking and washing purposes is obtained from springs and streams near the estates. Latrines are nowhere provided.

Medical Aid.

In Kangra one estate has a small Ayurvedic dispensary. Another estate has given a building free of rent to Rai Bahadur L. Sewak Ram Trust which has opened a free-hospital with 12 beds for the benefit of the general public including the labourers of the estate. Other estates keep a small stock of drugs and first-aid appliances and the manager dispenses these in case any

workers is ill. In Dehra Dun five estates have dispensaries with part-time qualified doctors and whole time compounders. The other estates stock some drugs and medicines which the managers dispense. Serious cases are sent to Government hospitals. In Almora one estate has a dispensary under a compounder. No other estate in Almora has any arrangement for medical attention to the workers. In Bihar the workers come from their villages and return there after the day's work and no arrangement for welfare activity of any kind is made by the estates.

Maternity Benefit.

In Kangra no estate pays maternity benefit. In Dehra Dun 5 out of the 10 estates pay maternity bonus of Rs. 7-8-0 per birth, one estate pays Rs. 14 and another gives free milk, food and clothes for a period of one month. The remaining three estates do not pay any benefit. In Almora women are not employed in plantations. In Ranchi all workers are temporary.

Schools and Creches.

Schools and creches are not provided anywhere except in one estate in Dehra Dun where a night school is run for the benefit of the workers and Hindi and Urdu are taught.

Grain and Other Concessions.

In Dehra Dun and Kangra some estates supply rice, wheat and potatoes at a concession price 20 to 30 per cent. below market rates. One estate gives a monthly grain compensation allowance of Rs. 2 for a bachelor, Rs. 3 for a married person and Rs. 4 for a married person with children. Some estates also give a blanket or a *chaddar* every year and occasional presents of shirts and dhoties. Some estates in Dera Dun give, during the busy season, tea with milk and jaggery to workers during the mid-day break.

APPENDIX II

Dividends declared by Planting Companies, 1938—1945.[1]

Gardens	1938	1939	1940	1941	1942	1943	1944	1945
	Dividends per cent							
TEA								
Assam Gardens								
Amluckie			2½	10	12½	10	8	
Ananda			*Nil*	*Nil*	5	5	7½	
Anandabag			6	6	12	10	10	
Baghmari		2½	4	6	15	10	10	
Barduar			*Nil*	4½	8½	4½	*Nil*	
Basmatia	10	12½	10	12½	17½	10		
Bateli	2½	5	5	10	25	25	25	
Betjan	15	20	25	30	35	20	20	
Bishnauth	17½	20	17½	25	35	30		
Bokakhat	5	7½	5	7½	12½	10	7½	
Borahi	2½	3	2½	*Nil*	2½	*Nil*	7½	
Borpukhurie	5	7½	5	10	20	15	10	
Cooliekoosie	5	5	5	5	10	5		

1. Compiled from—
The Investor's India Year Book, 1943-44.
Investor's Encyclopaedia, 1944.
"Capital".
September 2, 1943.
March 29, 1945.
July 5, 1945.
July 19, 1945, etc.
Share Market Reports of Maconochie & Co., Madras.

Garden	1938	1939	1940	1941	1942	1943	1944	1945
Assam Gardens—contd								
Dejoo Valley			*Nil*	*Nil*	10	7½	5	
Dessai & Parbuttia	14	16	14	25	35	30	15	
Dhelakhat	17½	15	15	20	30	20		
Dhunseri			*Nil*	*Nil*	*Nil*	*Nil*		
Dimakusi	20	25	20	30	50	45	35	
Dufflaghur	10	12½	7½	10	25	20	20	
East India	5	7½	5	7½	12½	12½		
Gillapukri	10	12½	12½	15	22½	10		
Gohpur		2½	2½	2½	15	25	25	
Grob	5	10	10	12½	17½	10	10	
Hoograjuli	10	10	12½	15	25	17½		
Hoolungooree	10	12½	10	15	25	20		
Jutlibari	10	12½	10	10	12½	10	7½	
Killing Valley	5	5	5	7½	10	*Nil*		
Kingsley-Golaghat	20	40	25	55	75	35	12½	
Krishnabehari			6	8	10	9		
Kyang Tea Seed	5	3¾	3¾	2½	2½	2½	2½	
Ledo	12½	14	15	15	20	15	12½	
Luxmi			22	35	60			
Mand Tea & Seed	6	5	5	10	12½	12½		
Moheema	2½	5	5	5	10	5	2½	
Mothola	25	35	35	40	50	45	35	
Murphulani			5	12½	35	20	15	
Naga Hills	5	10	10	20	25	25		
Namburnadi	2½	5	3¾	6½	7½	5	*Nil*	
New Cinnatolliah	17½	30	30	30	40	27½	25	
Panbarry			*Nil*	3¾	5	2½		
Rajgarh	5	7½	7½	12½	25	15		
Sapoi	5	7½	7½	10	17½	15	15	
Seajuli	15	20	15	25	40	35	25	
Teen All	7½	12½	10	15	22½	15	6½	
Teloijan	2½	4	4	5	6	5	6½	
Tengpani	10	15	15	20	25	20	15	
Te pore	2½	6¼	5	10	15	15	10	
Tongani			*Nil*	*Nil*	10	7½	10	
Tyroon	6	10	10	15	20	17½	17½	
Cachar Gardens								
Arcuttipore	5	5	7½	12½	12½	12½	5	
Central Cachar	2½	2½	3	5	7½			
Chandypore	2½	2½	2½	5	10			
Eastern Cachar	5	5	5	5	10	*Nil*	*Nil*	
Iringmara			*Nil*	*Nil*	*Nil*	*Nil*		
Kallinugger & Khoreel	2½	2½	4	5	7½			
Kunchunpore	8¾	7½	10	10	10	7½	7½	
Manipur			7½	10	12½			
North Western Cachar	17½	15	17½	17½	25	27½	20	
Pathemara	6	6	6	7½	15	6	6	
Roopacherra	2½	3½	5	10	20	17½	20	
Rungamattee	35	35	45	45	50	45	10a	
Sonai River	12½	10	12½	15	17½	10	17½	
Tilkah	6¼	6¼	6¼	7½	15	5	*Nil*	
Sylhet Gardens.								
Clevedon			30	30	45	30	30	
Chundeecherra			*Nil*	5	15	15	15	
Dauracherra	5	5	10	10	10	12½	10	
Hattikhira	12½	15	15	20	25	12½	10	
Kaliti	6¼	6¼	6¼	12½	17½	12½	6¼	
Lackatoorah	10	15	12½	20	22½	15	10	
Loobash			*Nil*	*Nil*	*Nil*	5	10	
New Samanbagh	17½	17½	17½	25	30	20	25	
Patrakola	65	2½	72½	72½	95	90	20a	
Rajnagar	2½	5	5	7½	10	5	5	
Rutema	7½	10	12½	15	20	15	15	
Teliapara	32½	30	35	35	50	40	40	

(a) Interim dividend.

Gardens	1938	1939	1940	1941	1942	1943	1944	1945
Darjeeling Gardens.								
Atal						10		
Chamong ..	5	5	7½	10	12½	12½	12½	
Darjeeling Tea & Cinchona	5	7½	12½	17½	17½	10	5a	
Dilaram	4	5	7½	7½	12½	7½	7½	
Gielle	7½	7½	7½	10	10	10	12½	
Lingia			12½	15	20	20		
Margaret's Hope ..	4	4	5	7½	10	5	5	
Mim	12½	12½	12½	15	17½	15	15	
Nagri Farm	10	12½	12½	15	20	15	15	
Okayti	45	50	60	60	60			
Pashok	6½	6½	10	12½	15			
Pootong	10	10	12½	12½	12½	7½	10	
Pussimbing			*Nil*	10	10	7½	7½	
Runglee Rungliot ..	35	35	40	40	55	50	5a	
Seeyok	5	7½	7½	7½	10	7½	5	
Singell		4	4½	5	7	4	*Nil*	
Singtom	7½	7½	7½	10	15	10	10	
Soom	5	10	10	12½	15	17½	12½	
Singma	5	2½	6	7½	10	8	7	
Teesta Valley ..	17½	17½	17½	20	27½	25	25	
Tukvar	5	7½	7½	7½	10	10		
Tumsong	5	5	*Nil*	5	5	5	5	
Dooars Gardens								
Ambari			70	100	180			
Banarhat	30	30	30	40	100	70	55	
Baradighi	25	25	25	30	50			
Bhatkawa	25	35	35	40	65	50	10a	
Birpara	17½	17½	20	20	35	27½	20	
Carron	40	47½	55	55	85	65	65	
Choonabhutti ..	30	30	30	35	75	60	50	
Ellenbarrie	15	22½	30	20	55	70	60	
Engo	10	10	12½	15	22½	15		
Ethelbari	2½	5	10	12½	20	12½	2½	
Gopalpur			76	104				
Hantapara	25	25	30	30	80	60	50	
Hasimara	27½	32½	30	32½	65	55	7½a	
Huldibari	12½	15	12½	20	37½	20	15	
Jaybirpara	12½	15	15	17½	40	30	35	
Killcott	30	35	40	40	70	50	40	
Manabari	10	12½	17½	17½	30	35	35	
Nagaisuree	65	72½	77½	77½	110	90	80	
New Dooars	70	80	80	90	135	120	20a	
Nuddea		—	55	100	200			
Oodlabari	15	20	17½	20	35	27½	20	
Phaskowa	5	7½	10	10	22½	12½	10	
Rajabhat	20	25	25	30	50	30	30	
Ranicherra	5	6	7½	12½	15	7½	10	
Rydak	40	40	40	45	75			
Sarugaon	5	5	5	10	25	45	40	
Terai Gardens								
Belgachi	5	10	15	20	40	65	75	
Gungaram	20	30	32½	32½	55	45	32½	
Hansqua	5	6½	7½	7½	10	7½	7½	
Longview		5	7	20	5a			
New Chumta	20	20	30	40	70	110	80	
New Terai	3¾	5	8¾	15	30	7½		
Paharpoomiah ..	10	12½	20	30	50	30	10a	
Putinbaree	40	50	50	50	90	60	45	
Sahabad			12	20	50			
Tirrihanna			*Nil*	*Nil*	*Nil*	*Nil*	10	

(a) Interim dividend.

Gardens	1938	1939	1940	1941	1942	1943	1944	1945
South Indian Gardens								
Balanoor		7½	7½	7½	10	15	20	20
Chembra Peak ..		5	5	15	30	40	40	30
Coonoor Tea		7½		*Nil*	*Nil*	15	15	
Coorg Tea							10	10
Devashola	6	7	7½	8	8	10	12	
Devon		7½	7½	7½	10	15	15	10
Fringford	9	3½		5	7½	20	10	5
Hail y' nria				17½	32½	25		
Highland Produce ..	27½	27½	27½	27½	50	17½	17½	
Kalasa Tea				6	6	7½	12½	10
Kalpetta	17½	6½	7½	22½	25	40	25	15
Mlamallay	10	7½	7½	10	11½	25	9	7
Nelliampathy ..				5	10			
Nilgiri Nirugundi ..				*Nil*	15	50	50	37½
Nonsuch	11	8	17	12½	10½	16		
Parkside Neilgherry Hills	10	10	12½	15	15	20		
Peermede ..		20	25	27½	45	45	27½	20
Periakaramalai	20	25	17½	17½	20	35	35	35
United Nilgiri ..	6	7	7	9	10	17½	15	
Vellamalai		2½	5	6	7½	12½	15	
Waterfalls							5	4
Woodcote							6½	
Woodland					10	12½	10	
RUBBER								
Anandam						6½	5	
Be Be Rubber ..			5	10	10	15	7½	*Nil*
Carunal	5	6	10	11	17½	17½		
Cochin	3	10	15	7½	7½	*Nil*		
Cochin Malabar ..	7½	10	15	30	50	57½	57½	50
Charel ..						11½		
Coorg Rubber ..	27½	12½	27½	30	30	50	40	
Cottanad	2½		2½	5	7½	10	12	12
Kerala Plantations ..						7½		
Kuttanad Rubber ..						55		
Malabar Agricultural Co.					15	10		
Malabar Industrial Co.						30		
Malankara		3½	5	7½	15	20	17½	20
Manalur	2½	5			4	*Nil*		
Midland			2½	5	7½	15	10	12½
Nellithanam	4	3	6½	8½	10	15	12½	17½
New Ambadi		5			10	10		
Nenmoney					17½	10	10	
Nilampur		5			20	25	20	
Pamba Valley ..						*Nil*	6	
Peninsular	5		2½		5	8½	7½	10
Periyar		5	8	10	10	10		
Pullengode							9	15
Rajagiri					7½	12½	12½	12½
Sherneilly		3	5	7½	7½	10	7½	
Thamarapally ..		10	15	12½	20	10	10	
Thirumbadi	5	7½	15	20	25	32½	32½	
Travancore Rubbers ..	6½	6½	7½	11½	15	6½	25	
Tropical	6½	6½	7½	11½	17½	15	11½	
Udayagiri			6½	9	12½	10	10	
Vaikundam	3½	5	10	12½	15	20	20	
Velliamatham ..	17½		15	22½	20	25	20	15
Woodland	5			10	10	12½	10	7½

Gardens	1938	1939	1940	1941	1942	1943	1944	1945
COFFEE								
Asoka						7½		3½
Balmadies							5	*Nil*
Blue Mountain							5	4
Chandra Malai							6½	
Consolidated Coffee							8	8
Devicolam					*Nil*	*Nil*	7½	
Ouchterlony					30	50	25	
Puthuthottam							6	
Savamalai						13	50	
Shevaroys							7½	5

APPENDIX III

Sampled Gardens in Assam.

ASSAM VALLEY.

Lakhimpur District	1. Koomsong
	2. Beesakopi
	3. Hapjan
	4. Lankashi
	5. Baijan North
	6. Baijan South
	7. Chubwa
	8. Thanai
	9. Norhortoli
	10. Tambulbari
	11. Jamirah
Sibsagar District	12. Attabarrie
	13. Hulungoorce
	14. Gatoonga
	15. Chenijan
	16. Cinnamara
	17. Doeria
	18. Bogidhola
	19. Dalowjan
	20. Barpathar
Nowgong District	21. Sagmootea
Darrang District	22. Singrimari
	23. Bhootcachang
	24. Pan-ery
	25. Dimakusi

SURMA VALLEY.

Sylhet District	26. Mulnicherra
	27. Rajghat
	28. Shumshernagar
	29. Lungla
	30. Luayuni
	31. Kurimpore
	32. Dullabcherra
	33. Kalinagar
Cachar District	34. Kurchimpore
	35. Dwarbund
	36. Labac
	37. Dewan
	38. Koomber
	39. Silcoorie

APPENDIX IV.

LABOUR INVESTIGATION COMMITTEE, GOVERNMENT OF INDIA.

Supplementary Questionnaire on Plantations.

I.—General.

N.B.—The statistics to be given under this section should relate to the latest year for which they are available.

1. What is the total number of labourers including their dependants living in your estate ? Please classify the families as follows :—

	Working				Non-Working			
	Adult		Children		Adult		Children	
	M.	W.			M.	W.		
(*a*) No. of families consisting of 1 member.								
(*b*) No. of families consisting of 2 members.								
(*c*) No. of families consisting of 3 members.								
(*d*) No. of families consisting of 5 members.								
(*e*) No. of families consisting of 6 members.								
(*f*) No. of families consisting of more than 6 members.								

2. Please give the total number of workers (men, women and children separately) employed on your estate during the pre-war month (August 1939) and during any recent month for which information may be available.

3. If possible, please give the age composition of your workers in the following form :

Those under 15.

Those between 15 and 55.

Those above 55.

If this is not possible, please give at least the percentage of workers above 55 to the total labour force.

4. What are the principal sources from which the labour force is drawn for work on your estate ? Please supply figures by provinces, states or districts as may be possible.

5. What is the total number of settled labourers borne on your register and what is the average number employed daily ? (Please give the number of men, women and children separately as well as the figure of each category for each month and for the year as well.) What is the average daily number of casual or outside (bustee or faltu) labourers employed during the year and during each month ? What proportion of the settled labourers or casual labourers belongs to the class of general agricultural labourers in the district ?

6. Is a labourer free to seek employment in any estate he likes ? Is there any agreement or understanding among employers not to entice labour from another estate or employ a labourer from another estate without the approval of the latter estate ?

7. Are outsiders required to take permission of the manager before they can enter and visit the lines ? Is any meeting of labourers allowed without permission ?

8. Describe the machinery and methods of recruitment of plantation labour. In particular, state whether the recruitment is by families and whether the *Sardars* or *Kanganis* work as the employers' agents or as independent professional recruits. What are the terms of the agreement of recruitment ? Please forward a copy of the agreement, if possible.

9. Is there a system of giving pre-employment advances to labour and, if so, what is the average amount advanced per worker or per family ? How are these advances given and recovered ? Are accounts properly kept and is each worker supplied with a copy of his account in his own language ? What is the period of settlement of such accounts and what interest, if any, is charged ?

10. Are the workers in Assam plantations cognisant of their rights under the Tea Districts Emigrant Labour Act, 1932, especially with regard to their right of repatriation ? If not, what steps have been taken to make them aware of their rights ?

11. Have any strikes taken place on your estate ? If so, please give full details stating the dates of the strikes and the number of workers involved. What were the issues raised and how far were they met in subsequent settlements ? What was the machinery employed for settlement ?

12. To what extent and in what respects have labour conditions on your plantations improved or worsened in recent years, especially since the Royal Commission on Labour reported in 1931 ?

13. Express your views on the suitability of a tripartite machinery in each Province or State concerned for dealing with the various problems of plantation labour, such as, housing, emigration, welfare activities, education, health, etc.

14. What machinery would you suggest for periodical inspection of labour conditions on plantations ?

15. Are the provisions of the Tea Districts Emigrant Labour Act and Rules made thereunder being strictly enforced ? If not, please state the extent to which evasion or violation is taking place in respect of any provisions and the methods or means of such evasion or violation.

16. In areas other than the Assam Tea Districts, what machinery has been set up to safeguard the interests of workers, especially in regard to recruitment and repatriation ?

17. (a) Have you any suggestions to make for improving or expanding the scope of the Tea Districts Emigrant Labour Act or its administrative machinery ?

(b) Are you in favour of extending the Act to areas not at present covered by it ? If so, please give reasons.

II.—Wages.

(Please give information in respect of the same year as in Section I, if possible.)

1. On how many days in the week do the labourers work and is a weekly holiday observed ? Is there any involuntary employment ? Are there any paid holidays ?

2. What are the normal hours of work—
(a) in field, (b) in factory ?

3. (i) Are wages of non-factory labour paid on the basis of—(a) piece rate, or (b) at daily rates.

(ii) If (b), what are the minimum hours for a full day and how is overtime paid ?

(iii) If labour is paid at a piece rate (or hazira) what is the unit of work for a full hazira ?

(iv) If labourers are paid at daily rates, what are the wages of different kinds of labourers and for overtime ?

(v) What is the piece rate or hazira rate ? Is work in excess of hazira freely allowed ?

(vi) What is your total wage bill during the year and how much of it was regular earning and how much ticca or overtime ? Please give this information month by month and state the total number of settled labourers on your books and the average number daily employed, month by month (men, women and children should be shown separately).

(vii) What is the best period for earning ticca or overtime ? How is plucking paid ? Is it paid on the hazira basis ?

4. On what basis are the basic wages (hazira or daily rate or any other piece rate) fixed ? Please state this basic rate each year during 1900—1910 or any other period of 10 years and the average price of common rice in your locality during these years. Is there any agreement about wages among employers and is any employer free to change the wage rates ? What steps are taken to increase wages if the cost of living rises ? If wages are not increased, is any dearness allowance given or are foodstuffs supplied at a concession rate ? If so, what has been the annual expenditure on dearness allowance or loss due to the supply of foodstuffs at a concession rate during the last 10 years ? What are the other concessions, in money or in kind, given ? Please state under what conditions these concessions are given and what is the amount spent each year during the last 5 years for different concessions and how many persons received the concessions ? Please evaluate concessions in kind in terms of money and state why they should not be abolished in lieu of a consolidated wage.

5. If the basic rate or hazira has not been changed recently, please explain the circumstances under which this was fixed. Is any garden in your locality paying a higher rate ? Please name the garden or gardens and justify the difference.

6. What is the wage period on your plantation ? What is the interval usually elapsing between the date on which wages become due and are actually paid ? Is there any system of settling the account at the end of the season and, if so, please state why it should not be discontinued ? Are any deductions made from wages for fine or otherwise and is the labourer informed of such deductions ?

7. How is the leaf weighed on tea plantations and how are the accounts kept ? Is the weighing machine tested at regular intervals ? If so, by whom ? Are any deductions made for dampness while weighing the leaf and, if so, on what basis ?

8. How do earnings on plantations compare with those of agricultural workers in neighbouring areas ?

9. Do labourers take leave when they absent themselves from work (on grounds other than sickness) ? Are labourers informed by the employer when work cannot be offered to them ?

10. What is the total amount of (a) Estate land, and (b) other lands, cultivated by the settled labourers ? How many families possess land and what is the approximate value of the produce per acre ? What rent is charged by the estate and is a labourer liable to vacate the land on demand by the estate ? How is selection of labourers for land made ?

11. Are workers encouraged to keep cattle on the plantations ? If so, are suitable cattle sheds and pasture ground provided ? Is any pasturage charge levied ?

12. Are you in favour of the establishment of Wage Boards in different plantation areas ? Give reasons for your views.

13. Are you in favour of applying the Payment of Wages Act and some provisions of the Factories Act (e.g., hours of work, etc.) to the non-factory labour on plantations ? If not, please state why ?

III.—Housing.

1. Has any scheme for providing quarters of an improved type to labourers been adopted by your estate ? If so, please explain the scheme briefly and state how many such quarters have been put up in each year since the inception of the scheme and at what expenditure in each year ? If no quarters of an improved type have been built or only a small number has been built, please state why no progress has been made.

2. (a) What are the types of quarters in which labourers are housed on the estate ? Please supply information on the following points :—

(a) Type of quarters	(b) No. of families living in such quarters.	(c) Total population living in such quarters.
(i) Kucha barracks		
(ii) Pucca barracks		
(iii) Single and detached quarters (Kucha)		
(iv) Single and detached quarters (Pucca)		

(N.B.)—Kucha means earthern-floor and mud or bamboo walls. Pucca means paved or cemented floor).

What is the floor area of a single quarter and how many persons live in one quarter on an average ?

How many rooms are allotted, on an average, to each family in barrack houses ? What is the area of each room, on an average, and the size of a family, on an average, living in such barracks ? Is a kitchen attached to each living room ?

(b) Are windows provided in each living room ? If so, please give details.

(i) What is the height of the plinth of the houses ?

(ii) Is a paved yard provided in front of the lines ?

(iii) Are concrete drains provided in front of the lines and, if so, of what type ?

(iv) Is a bath room attached to each living room ?

If there are common bath rooms, is separate provision made for male and female labour ?

3. What rent is charged from labourers for their quarters and who pays for repairs ? Please state how much the estate has spent each year during the last 10 years on housing on—

(i) new construction, and

(ii) repairs.

Please also state the amount of rent, if any, realised in each year during these years.

4. How many latrines have been provided for the labourers quarters and of what type, e.g., ordinary, bore-hole, " flush ", etc. ? To what extent are they used ? What arrangements are made for cleaning the latrines ? What is the proportion of the number of latrines to the number of living rooms ?

IV.—Health and Sanitation.

1. What are your birth and death figures in recent years ? (Please give the figures separately for each year and show the ratios of births and deaths per 1,000 of the population.)

Are births and deaths promptly recorded ?

2. Is there any dispensary on the estate and is there a qualified doctor constantly available ? If not, what arrangements have been made for the treatment of sick labourers ? Are there any hospital facilities on the estate ? If not, what is done with such cases ?

3. Is treatment free to labourers and their dependants ? Is any fee charged for such treatment ?

4. Is any allowance paid to a labourer or a dependant if he is sick ? If so, please state the rate of such allowance and the conditions under which it is paid. Please also state the total expenditure incurred every year by the estate on this account during the last 5 years.

5. (i) Is there any maternity clinic or any special arrangements for ante- and post-natal cases ? Is any maternity benefit paid ? If so, please give details.

(ii) Do confinements generally take place in

(a) the hospital, or

(b) the lines ?

What payment, if any, is made to the parents at childbirth at (a) or (b) above ?

(iii) For how many weeks before, and after, confinement, respectively, is free food issued to the mother ?

(iv) Is any special diet given to the mother and infant in addition to (iii) above ? If so, please give details.

(v) Is any free clothing issued to the infant ?

6. Is there any provision for child welfare or periodical medical examination of children and adults ? Please give particulars.

7. What arrangements are made for looking after children when mothers are engaged in work ? Are any creches maintained by the estate ?

8. Please give the following information for each year for as many years as possible, showing the number of cases treated in the estate dispensary and hospital :—

YEAR.	(a) Total average population.	(b) Cases of minor ailments.	(c) Cases of major ailments.	(d) Total No. of cases treated.	(e) No. of cases

N.B.—Minor ailments include such complaints as skin diseases, burns, sores, bowl complaints, etc.

9. Please state the amount spent annually by the estate during the last 5 years for the provision of medical relief and sanitation. (This expenditure should not include expenditure on anti-malarial measures, provision of pure drinking water, etc.)

10. Has any anti-malarial scheme been started on the estate ? If so, please explain briefly the measures taken. Please state the annual expenditure on such measures during recent years. What has been the effect of such a scheme on the general health of labourers ?

11. What provision has been made for supplying pure drinking water ? Is the water supply adequate and easily available ?

12. Do you issue a free meal daily to all non-working children ? If so, please give details.

V.—Welfare.

1. Have any measures been adopted for the welfare of labourers and their dependants ? If so, please explain briefly the scope of such work and the expenditure incurred by the estate on such work.

2. Are there any schools for adults ? If so, when were they started and what is the average daily attendance.

3. Are there any schools for children ? What is the contribution of the estate to such schools ? Are such schools under the Education Department or under the estate ? What is the number of children taught in these schools and what is the average daily attendance ? What is the proportion of students to the total number of children of school going age ? Is education free ? Will attendance improve if children below 12 years are not employed by the estate ?

4. What are the recreations of the labourers ? Are cinema shows or music parties provided at the expense of the estate ? Do labourers make any contribution to such shows ? How much has the estate spent for this purpose in recent years ?

5. Is there much drinking among labourers ? If so, what steps do you propose for the eradication of this evil ?

6. Have your workers joined any trade union and, if so, what is their number ? Is there any desire for combination among your labourers ?

7. What arrangements exist in your estate for ensuring adequate and regular supplies of provisions to your workers ?

APPENDIX V

Forwarding Agencies.

1. Asansol.
2. Chakradharpore.
3. Gauhati.
4. Gondia.
5. Kharagpur.
6. Khurda Road (Rest House).
7. Lalmonirhat.
8. Naihati.
9. Rangiya.
10. Salur.
11. Santahar.
12. Tezpur.
13. Tinsukia.
14. Vizianagram.

Local Forwarding Agencies.

Name.	*Situated in Province or State.*
1. Basti	United Provinces
2. Berhampore	Orissa
3. Bilaspur	Central Provinces
4. Chaibassa	Bihar
5. Cuttack	Orissa
6. Daltongunge	Bihar
7. Dumka	Bihar
8. Jagdalpur	Bastar State
9. Jashpur	Jashpur State
10. Jubbulpore	Central Provinces
11. Kharagpur	Bengal
12. Koraput	Orissa
13. Mandla	Central Provinces
14. Nasik	Bombay
15. Raipur	Central Provinces
16. Rampurhaut	Bengal
17. Ranchi	Bihar
18. Sambalpur	Orissa
19. Vizianagram	Madras

APPENDIX VI

Tea Districts Labour Association Question Sheet, Form A.

Sirdar ..... of ..... Estate.

Father's Name .....Caste.....

Village ..... Thana ..... District .....

QUESTION.	ANSWER.
1. How many years has he been on the Garden ?	
2. (*a*) Approximate date of last vaccination. (*b*) Has he received full course of two Cholera inoculations ? (*c*) If so, give approximate dates.	
3. Is the Sirdar going on leave, *i.e.*, is he not to be given an initial advance on his arrival. May he be given the usual advances, if he should bring in recruits ?	
4. Has he recruited before ? If so, when, with what success ? Has he ever recruited through any agency other than that to which he is now consigned ?	
5. What relatives, cultivation cattle, or other property has he on the garden ?	
6. Synopsis of special instructions given to Sirdar by the Manager which he wishes the Local Forwarding Agent to reiterate. For example. (*a*) Recruiting is limited to the Sardar's family/relatives. or (*b*) Single males but not more than ( ) will be accepted. or (*c*) If Sirdar is sent to recruit specific persons what are their names ? etc.	
General Instructions (not connected with the Sirdar.) Is the Manager prepared to accept : (*a*) Voluntary labourers who have not been in Assam previously. (*b*) Voluntary labourers who have been in Assam or other estates. (*c*) Repatriated labourers from his own estate, whether they are assisted or non-assisted emigrants. (*d*) Labourers recruited by ex-labourers of his own estate. (*e*) Unrelated single males if accompanying co-villagers.	

Date .....

Manager.

APPENDIX VII

Tea Districts Labour Association Information Sheet.

Summary of conditions prevailing on the .....

Estate .....Tea Company.

(Being information to be supplied under Rules 22 and 25 of the Bihar and Orissa Tea Districts Emigrant Labour Rules under Act XXII of 1932).

(a) The situation of the tea estate, and the number of day's journey from depot.

(b) The nature of work to be done by the assisted emigrant.

(c) The hours of work per day and the days of rest generally allowed.

(d) The wages offered.

(e) Arrangements for housing.

(f) The climatic conditions in terms such as "hot and damp", "temperate and fairly dry", or "dry and cold", for each season of the year.

(g) The chief diseases from which labourers suffer, e.g., malaria, hookworm, dysentery.

(h) The medical facilities and concessions allowed, e.g., free treatment and medicine, allowances while on the sick list and before and after childbirth.

(i) The estimated cost of living in the tea estate in question.

(j) Whether there is any prospect of land being granted for cultivation temporarily or permanently.

....Tea Estate.

Date .....

Signature of Manager.

APPENDIX VIII

Rules for the Recruitment of Emigrant Labour from Indian States and the names of the States which have adopted them.

1. (a) All terms and expressions used in these rules shall, unless otherwise explained, have the same meaning as in the Tea Districts Emigrant Labour Act (XXII of 1932).

(b) The expression "State Authority" means the Superintendent in the case of states under the direct management of Government, and in other cases, the Ruling Chief or any responsible officer of the State appointed by him for the purpose of these rules.

2. (a) All persons are hereby prohibited from recruiting or attempting to recruit any native of the State or any other person for the time being residing in the State for emigrating to any labour district otherwise than in accordance with these rules and unless they are provided with a certificate signed by the Local Forwarding Agent in the British District through whose depot they will be forwarded to Assam.

(b) Whoever within the State knowingly recruits or attempts to recruit any native of the State or any other person for the time being residing in the State in contravention of these rules, shall be punishable with imprisonment for a term which may extend to one month or with fine which may extend to five hundred rupees, or with both.

3. (a) No person shall be allowed to recruit emigrants unless he works under the control of a Local Forwarding Agent licensed by the State.

(b) No Local Forwarding Agent will be licensed by the State authority unless he already holds a license as a Local Forwarding Agent in British India and the license of the State authority will be withdrawn when the Local Forwarding Agent ceases to hold a license in British India. A copy of the British India license of the Local Forwarding Agent showing the name of the employing interest employing him shall be sent to the State authority when applying for a license to be granted by the State Authority.

(c) The State authority will entertain no application from any one for a license as a Local Forwarding Agent unless the application is received through the Agent to the Governor General, Eastern States. Such application must contain full particulars of the Local Forwarding Agent for whom a license by the State is sought.

(d) An annual fee of Rs. 20 shall be payable on each license granted under this section.

4. A register shall be maintained by the Local Forwarding Agent for the State in the form appended to these rules, and at the end of each month a copy of all entries in each register relating to the month shall be forwarded by him direct to the State concerned, another copy being at the same time supplied to the Agent to the Governor General, Eastern States, for record in the office.

5. For every adult emigrant from the State registered and accepted by a Local Forwarding Agent a fee of Rs. 5 shall be paid by the Local Forwarding Agent to the State.

6. The Local Forwarding Agent signing the recruiter's certificate under Rule 2 of these rules will send a copy of the certificate which shall be in the form appended to these rules to the State authority.

7. A fee of Rs. 15 shall be paid to the State for every certificate under Rule 2 above.

8. (a) No certificate under Rule 2 shall be granted for a longer period than one year from the date thereof and, if the certificate-holder fails to comply with any of these rules or is guilty of any other misconduct or is found by the State authority to be for any other reason unfit to recruit emigrants his certificate will be liable to cancellation by the State authority.

(b) Whenever a certificate is cancelled, the State authority will inform the Local Forwarding Agent concerned and intimate the grounds of cancellation.

9. Any recruit brought in by an authorized recruiter and rejected at the Local Forwarding Agency will be sent back to his home in the State at the expense of the employing interest concerned. Such expenses shall include actual rail and lorry fares and also a diet allowance at rates to be fixed from time to time by the State authority. Any dispute regarding the scale of such allowance shall be referred to the Agent to the Governor General, Eastern States, whose decision shall be binding on both parties.

10. The fees prescribed for a recruiter's certificate under Rule 2 and for registration of each adult emigrant under Rule 5 shall be collected by the Local Forwarding Agent and remitted quarterly to the State authority.

11. In any case where the State has permitted recruitment within its territory in accordance with these rules, this permission may be withdrawn by the State authority on giving six months' notice of the date on which recruitment will no longer be allowed. The notice will be given through the Agent to the Governor General, Eastern States, who will inform the employing interest which employed the Local Forwarding Agent in the British District through which labourers from the State are forwarded to Assam. The six months will begin from the date on which the notice is received by the employing interest. After receipt of such notice no certificate under Rule 2 shall be granted in respect of emigration from the State which has given notice terminating recruitment.

12. Every Local Forwarding Agent under whom recruiters are working in the State and the *chaprasis* and other servants of such Local Forwarding Agent shall be allowed to enter the State at all time for the purpose of inspecting and supervising the work of such recruiters.

1. The following Indian States have adopted the recruiting rules in their entirety :—

1. Kharsawan
2. Hindol
3. Athgarh
4. Baramba
5. Pal-Lahara
6. Khandpara
7. Daspalla
8. Bamra
9. Patna
10. Tigiria
11. Nayagarh
12. Athmallik
13. Dhenkanal
14. Baud

2. The following States have also adopted the recruiting rules, but with slight modifications affecting permissable period of imprisonment for offences or minor amendments which it is unnecessary here to recite :—

1. Narsinghpur
2. Sonpur
3. Keonjhar
4. Rairakhol
5. Nilgiri
6. Jashpur
7. Seraikela
8. Gangpur
9. Mayurbhanj
10. Bastar

3. Recruiting is prohibited in the following States :—

1. Bonai
2. Kalahandi
3. Ranpur
4. Talcher
5. Surguja
6. Changbhakar
7. Udaipur
8. Korea

APPENDIX IX

List of Sampled Gardens in Bengal.

Darjeeling District	1. Barnesbeg
	2. Castleton
	3. Ging
	4. Monteviot
	5. Moondakot
	6. Oaks
	7. Ringtong
	8. Tukvar
Terai	9. Gayagonga
	10. Kamala
	11. Kamalpur
	12. Mohorgong
	13. Rohni
Jalpaiguri District (Dooars)	14. Baradighi
	15. Dalgaon
	16. Dalmore
	17. Ellenbarrie
	18. Gairkhatta
	19. Gangutia
	20. Gurjaman
	21. Gurjangjhora
	22. Hahaipatha
	23. Jainti
	24. Looksan
	25. Nagaisuree
	26. Nakhati
	27. Nedam
	28. New Dooars

List of other gardens visited by the Chairman.

Darjeeling District	1. Happy Valley
	2. Singell
	3. Singtom
	4. Gungaram
Terai	
Jalpaiguri District	5. Rungamutee
	6. Gopalpur
	7. Mathura
	8. Telipara
	9. Mujnai

APPENDIX X

List of Sampled Estates in South India.

District.	Estate.
TEA.—	
South Travancore	Madamon
	St. Mary's
	Hereford
	Heavenford
	Bon Accord
	Merchistone
Central Travancore	Pullicanam
	Churakulam
	Ranicoil
	Carady Goody
	Laudram
	Peters Pazhukanam
	Pirmid
	Glenmary
	St. Josephs
Munnar	Chockanad
	Sevenmallay
Anamallais	Thonimudi
	Oosimalai
	Sholayar
	Lower Paralai
	Stanmore
	Sheikalmudi
Nilgiris	Katary
	Rob Roi
	Singara
	Terramia
	Terrace
	Benkal
	Aramby Valley
	Kathorai
Wynaad	Devarashola
	Sussex
	Mayfield
	Attikunna
	Arrapetta
	Nellimunda
	Cherakara
	Porrengoda
	Fringford & Forest Flower.
RUBBER.—	
South Travancore	Cavunal
	Rajaratnam
	Vaikundam
	Ambadi
	Rajagiri
	Ratnagri
	Manakayam
	Edamon
Mundakayam	Srambi
	Nenmeni
	Boyce & Peruvanthanam
	Vellanadi
	Chacati
	Eldorado
	Kuttikal
	Erumeli
	Chittadi
	Pazhuthadam
	Pulimavur
	Neduvanal

APPENDIX X—*contd.*

District.	Estate.
RUBBER.—	
Mundakayam—*contd.*	Mazhavanchery
	Podimattom
	Teekoy
North Travancore	Kaliar
	Malankara
	Mar Thoma
Malabar	Kinalur
	Kuttiadi
	Calicut
	Pullengode
MIXED (Tea & Rubber)	
South Travancore	Isfield
	Koney & Kallely
	Pampa Valley
	Kottakkal
Mundakayam	Kuppakayam
	Kadamankulam
	Yendayar
	Cheru Valley
Malabar	Cottanad
COFFEE.—	
Coimbatore	Valparai
Madura	Waterfall
	Pillavali
	Poomalai
	Pichankarai
Nilgiris	Adderly
	Ebanad
	Kulloor
	Guynad
	Hope Group
Wynaad	Kootamanda
	Lower Devamalai
	Laurels
Shevaroys	Cascades & Athiyur
	Beverly
	Highfield
	Valalakadai
	Honey Rock & Pillyyoor.
	Hawthorne
	Belvidere
Coorg	Polibetta
	Yemmigoondi
	Ghatad Hulla
	Silpi
	Heroor
	Dalqurren
	Kabinkad
	Nellikere
	Suntikoppa
	Wooligoolly
	Santagherry
	Abial
	Buttikeri & Kodagarahalli.
	Chettali
	Billigeri & Pannya
	Kurghally
	Coovercolly Group
	Kusbur

APPENDIX X—*concld.*

District.	Estate.
COFFEE.—	
Mysore	Arabidacool Watekhan Toomdevanahalli Urvinkhan Sampigaykhan Javali Yellikodige Ilekan Ossoor Wartyhully Uttolalu Hosergooda Balur Sampige Group Kurkenmutty Group Netracoondah Karady Khan Mysore Plantations Koppa Umbidikhan Karehadlu Anapara Government Experimental Farm.

APPENDIX XI

List of Estates, other than the Sampled ones, visited in South India.

South Travancore	Kandankulam
Central Travancore	Laxmicoil Granby
Mundakayam	Mundakayam Olayanad
North Travancore	Elappally
Munnar	Periavurrai Thenmallay Nettigudi Pallivasal Munnar
Anamallais	Karamalai Selaliparai Ayerpadi Puthuthottam
Nilgiris	Woodcote Carolina Prospect Nonsuch Manihada
Wynaad	Caroline Kelley
Shevaroys	Grange
Madura	Muttom
Coorg	Canancadoo Huthribane Hardur Chickenhulli
Mysore	Kadamane Animahal Dongal Gargahally Sulegaddi Kummergode

APPENDIX XII

Rules framed for Conserving the Health and Protecting the Interests of Labourers employed on Plantation Estates in Cochin State.

1. For the purpose of these rules an estate means " any estate on which labourers are employed having 10 acres of land actually cultivated in tea, rubber, coffee, cocoa, cardamoms, camphor, pepper, cocoanuts, arceanuts and cashew nuts " or " any such estate where 20 or more labourers are employed on any one day in the year ".

Inspection.

2. The Director of Public Health or his deputy, who shall be a senior member of the staff of the Public Health Department, and, or the District Magistrate or his deputy not below the rank of a second class Magistrate shall pay periodical visits to all estates usually once in 12 months, but with power to visit at any other time.

3 The names of deputies, who shall be full time Government servants, appointed by the Director of Public Health, or by the District Magistrate, shall be advised to the owners or Managers of the estates which they are appointed to visit.

4. An Inspecting Officer visiting an estate shall notify his presence to the estate authorities immediately on arrival on the estate.

5. The Inspecting Officers shall report on general conditions on estates visited, with special reference to points under the headings given later in these rules, to the Heads of their respective Departments, who will make such suggestions to the estates as thought fit, and who will forward a copy of their remarks and suggestions to Government.

6. The Inspecting Officer on his deputy shall have power to enter all open or enclosed places on an estate where he has reason to believe labourers are working or are accommodated, also to call for and inspect or copy any register or other document in which particulars regarding employment, births, deaths, accidents, etc., of labourers are recorded.

7. If recommendations are made by the Head of a Department which are not found accepted by estates, the matter will be referred to a Planting Estates Advisory Committee to be appointed by Government, consisting of the Director of Public Health, the Planting Member of Council and the Member of the Council for Commerce and Industries, and the signatories to this memorial undertake to carry out the findings of this Committee.

Medical Facilities and Vital Statistics.

8. Every estate shall provide free medical aid to all resident labourers.

9. Every estate shall maintain a register of resident labourers who fall ill on the estate and shall provide such labourers with free food during illness and convalescence. A summary of this register shall be sent to the Director of Public Health every three months.

10. No resident labourer, who has been ill, shall return to work until certified fit to do so.

11. Every estate shall provide free issues of ordinary medicines at all times, and of quinine or some other medicine, as Atebrin or Plasmoquine, approved by the Director of Public Health.

12. Every estate shall adopt necessary anti-malarial measures during the malaria season and the Government undertake to co-operate in this work when the source of infection is found to be outside estate limits.

13. Every estate shall report within 24 hours any case of plague, cholera or small-pox among the labourers on the estate to the Director of Public Health, who shall adopt immediate preventive measures as per existing rules governing epidemic diseases.

14. No corpse of any labourer, in a plantation estate, who has died of any dangerous disease shall be retained in any worker's unit for more than 12 hours and every such corpse shall be removed within that period to a burial or burning ground set apart for the disposal of corpses.

15. Every estate shall maintain a register showing births, deaths, accidents, etc., among labourers a copy of which shall be sent to the Director of Public Health quarterly.

Maternity Benefit.

16. The estates agree to provide free maternity aid and food to all resident labourers for a period of seven weeks.

Housing.

17. The Director of Public Health is empowered to condemn immediately any building which, in his opinion, is insanitary and unfit for human occupation.

18. A standard of minimum housing requirements shall be drawn up within two years.

19. Every estate shall provide accommodation for labourers of the approved standard but total necessary expenditure may be divided over a period of four years.

Water Supplies.

20. Every estate shall make available to every labourer two gallons of water per day from a water supply, approved by the Director of Public Health.

Sanitation and Conservancy.

21. Every estate shall provide annually a number of latrines which shall be kept in a clean and sanitary condition, so that there will be sufficient accommodation, at one seat per 20, for all resident labourers within a period of four years.

22. Every estate shall keep the lines in which labourers are housed and stores and shops in which rice and other foods are stored and the surroundings thereof in a clean and sanitary condition.

Employment of Young Persons.

23. Every estate shall maintain a muster roll of resident labourers showing names, ages, date of employment, nature of work, etc.

24. No child under the age of 10 years shall be employed on any estate.

25. No child or young person under the age of 16 years shall be employed as a resident labourer on an estate without being certified fit to work by a Medical Officer approved by the Director of Public Health.

26. No woman or child labourer shall be allowed to work on a plantation except between 6 A.M. to 6 P.M.

Food Supplies.

27. Estates agree to supply to labourers, whose accounts are not settled in cash at least once in a month, a sufficient quantity of rice of good quality at cost price. They also agree to pay to every labourer at least four times a month an amount in cash sufficient to cover the cost of other necessary food stuffs.

28. Estates agree to maintain a separate account for all food stuffs which they supply to labourers and this account will be available at the time of the periodical inspection and if any profit is made on food supplies, it will be either returned to the labourers or utilized for their direct benefit.

29. No person under the control of the estates, who sells articles to the labourers or acts as a broker or commission agent or carries on a similar business, shall use any scales which are not stable, sensitive or accurate in their working or use any weights and measures which are not standard weights and measures specified in the schedule and stamped as such at a Government Treasury. A weight or measure stamped as aforesaid shall not, in any manner whatsoever, be altered or modified so as to affect the accuracy thereof. Every workman, measurer, trader, broker, or commission agent who is working in any plantation estate, shall produce for examination and test, all scales, weights or measures used by him, when required to do so by the Director of Public Health or his deputies or by the District Magistrate or his deputies.

30. In no case shall an estate be responsible for the infringement of this rule by petty traders not working under its control.

APPENDIX XIII

Coffee Curing Works.

The final processes of the preparation of coffee for the market are done in coffee curing works which are situated in the plains. Coffee curing involves drying, peeling or hulling, grading and garbling. Efficient curing is a major factor in the preparation of coffee for the market.

In South India there are 17 coffee curing works. Five of these are in Mangalore, three each in Chickmagalur and Madura Districts, two in Coimbatore and one each in Hunsur, Mysore, Tellicherry and Calicut. Most of the works are seasonal factories. Coffee curing generally starts in January and lasts till August or September. Some of the works, however, manufacture fertilisers during the off season and some others take up rice milling or decortication of groundnut.

Eight coffee curing works were visited for purposes of the present survey, three in Mangalore and one each in Tellicherry, Calicut, Hunsur, Mysore and Chickmagalur.

Organization.

Ten out of the 17 coffee curing works are limited liability companies, of which 6 are run by firms who are managing agents or shipping agents for a large number of estates. Every curing concern has a manager who is generally given a free hand in its internal organization and management.

Processes.

Parchment or cherry coffee is brought to the curing works from estates, packed in gunny bags. On its receipt at the curing yard it is measured and the weight of a few bushels is taken. The coffee as it is measured is spread out on the barbacues (cemented yards) for drying. To obtain even and uniform driage coffee on the barbacues is continuously raked and stirred. Unskilled men are employed on this work and are generally known as ' yard workers '.

After the coffee is properly dried it is left overnight in the bag for cooling. The dried coffee is thereafter peeled in the machine to separate the husk from the bean. In about 12 to 20 minutes the beans are separated. An elevator lifts up both husk and bean and a powerful current of air is passed through to blow

the husk into a separate chamber. Coffee drops down into the receiver and is again elevated and passed through the winnower. The grading of the clean beans is then done by passing the beans across a number of sieves fitted cylindrically or horizontally with meshes of different sizes. Coffee is generally classified into four grades, 'A', 'B', 'C' and 'Peaberry'. Only a few unskilled workers are required to feed the peeler and the sizer, to remove the beans, etc. Skilled workers are required to operate the machines. The last stage is garbling which consists of picking out defective and broken beans from each grade. Mostly women are employed on this work and are paid on a piece basis.

Employment.

Employment in curing works is mainly seasonal. During the off season only a skeleton staff is employed. Employment of workers through contractors is also very common. In some curing works the majority of the workers are employed and paid through contractors.

The following table shows the extent of employment in the sampled works.

TABLE 115

Employment in 8 Curing Works in 1944.

Works	No. of workers directly employed		No. of workers employed through Contractors		Total		No. of piece-rate workers	No. of time-rate workers
	Men.	Women.	Men.	Women.	Men.	Women.		
Mangalore	10	293	27	4	37	297	324	10
,, ...	35	268	..	..	35	268	268	35
,, ...	33	500	..	..	33	500	500	33
Tellicherry	3	200	16	..	19	200	200	19
Calicut	7	..	23	171	30	171	194	7
Hunsur	100	330	..	..	100	330	003	130
Chickmagalur	95	150	..	..	95	150	150	95
Mysore	47	246	..	..	47	246	243	50
Total ..	330	1,987	66	175	396	2,162	2,179	379

The curing works selected are the more important ones. Probably the two coffee works in Coimbatore employ as many as any one of these, while the remaining seven are of lesser consequence. The total employment in the coffee curing works, therefore, would be about 4,000. It is seen from the sampled units that 84.5 per cent. of the workers are women and the rest men. No children are employed.

Classification of Workers.

As nearly all the curing works are seasonal factories, only the mechanics and watchmen are classified as permanent workers. They number from 3 to 8 in each factory.

Figures for labour turnover and absenteeism were not available.

Contract Work.

Contract work is common in curing works. Generally all work in connection with the yard, and peeling and grading is given on contract, the rate being fixed at about Rs. 6-8-0 per ton for parchment and Rs. 9-8-0 per ton for cherry coffee. The contractors pay wages to the workers on daily rates. Sometimes garbling work is also given on contract in which case the contractors engage women on a piece basis.

Wages and Earnings.

About 85 per cent. of the workers in curing works are paid on piece basis for garbling work. The rate is calculated for a "ticket" in Mangalore and in the Mysore State and for an *amsam* in Calicut and Tellicherry. The ticket or *amsam* varies for different grades of coffee, the task being more for higher grades and less for lower grades. The rates of wages per 'ticket' and the average size of the tasks are given below :

TABLE 116

Rates of Piece Wages.

Curing Works	Average task (Lbs.)	Rate Rs.	A.	P.
Mangalore	90	0	3	0
,, ...	90	0	3	0
,, ...	90	0	4	0
Tellicherry	60	0	6	0
Calicut	50	0	4	0
Hunsur	80	0	6	0
Chickmagalur	112	0	7	6
Mysore	70	0	6	0

The skilled workers are paid wages on a monthly basis and the rates vary from Rs. 25 to Rs. 40. Unskilled men workers are paid daily wages of 8 to 10 annas in Mangalore, Rs. 1-4-0 in Calicut and Tellicherry, 8 annas in Hunsur and Mysore and 10 to 14 annas in Chickmagalur.

Dearness Allowance and Bonus.

Salaried workers are given a dearness allowance of Rs. 15 a month in Mangalore and Chickmagalur and Rs. 10 to Rs. 15 in other centres. Daily-rated workers in Mangalore are paid a dearness allowance of 12 annas and 14 annas in the rupee of their wages. In Mysore a dearness allowance of 1 anna per day worked is given. The store workers in Chickmagalur get Rs. 5 per month as dearness allowance but their daily wages are only 6 to 10 annas as compared to the 10 to 14 annas of the yard workers. Only two curing works in Mangalore give a dearness allowance of 8 annas and 6 annas in the rupee of earnings to garblers, but their wage rates are lower than those of the other workers.

An attendance bonus of Re. 1 per week for 6 days' attendance and 12 annas for 5 days' attendance is given by the curing works at Mysore to the daily-rated workers ; the Hunsur works pays a bonus of 3 annas per day to daily-rated workers and 6 annas a week to piece workers to 6 days' attendance in a week.

Earnings.

The total number of work days in a wage period of 7 days in different months in 1944 and the corresponding total wage bill were noted down in three centres in the case of women garblers and their daily earnings were as shown below :

TABLE 117

Average Daily Earnings of Garblers.

Centre.	Jan. '44 Rs.	A.	P.	April '44 Rs.	A.	P.	Oct. '44 Rs.	A.	P.	Nov. '44 Rs.	A.	P.
Calicut	0	2	3	0	3	9	..			..		
Tellicherry	..			..			..			0	6	0
Chickmagalur	..			0	3	5	0	3	6	..		

It was said that garblers generally worked for only 4 or 5 hours a day.

Overtime.

Occasionally overtime is worked, especially during the busy months from February to May. But no extra payment is made for overtime, except in the Hunsur works where overtime is paid for at time and a half.

Payment of Wages.

The wage period is one week in the case of piece workers and daily-rated workers and one month in the case of salaried workers. Payment is made on the last day of the wage period for piece workers and daily-rated workers, and on the first of the following month for salaried workers.

Working Conditions.

Of the 8 selected curing works only one in Mangalore works double shift. The hours of work are 10 with a spreadover of 11½ hours, except in Hunsur where the hours are 8 and spreadover 9 as the factory is a perennial one. All the works are subject to the Factories Act and conform to the standards of ventilation, lighting, sanitation, floor area, etc., laid down therein. Shelters for rest are not provided in any of the works.

Housing.

Housing is provided by the works only in two concerns, *viz.*, Hunsur works and the Mysore coffee curing works, Chickmagalur. At Hunsur there is one block consisting of 6 rooms and 3 blocks of 2 rooms built on the model of the Consolidated Coffee Estates recent houses described in the body of the Report. At Chickmagalur the houses are built in blocks of 7 rooms each and there are four such blocks. Each room is 10 ft. × 12 ft. In both these works only skilled workers such as engine drivers and mechanics, and watchmen are given quarters.

Welfare.

Only one works at Chickmagalur has a dispensary in charge of a qualified compounder with a qualified doctor visiting twice a week. First aid boxes are kept in other works. No canteens or grainshops are provided anywhere. The checkroll labourers in Hunsur Works, however, get ⅛th seer of wheat per day free. There are no schools for the education of children. Schools, however, are not necessary, for all the works are in towns where Government have provided the necessary facilities for education. Only the Hunsur works has a creche. The creche is in a big building divided into two blocks for different castes. A woman is engaged to look after the children and free food is given to them. It was started only in February 1944 and did not make a good beginning as the nurse in charge who had a white uniform appeared like an apparition to the children. Now a woman in ordinary dress is put in charge and the creche attracts about 30 children a day.

All the 8 works have Provident Fund but only the permanent superior staff and skilled workers who are on monthly rates of wages are eligible to join it. Such skilled workers are only engine drivers or mechanics and usually there are only two or three such workers in each concern. The contribution is from 5 to 8 percent. of their basic wages by the workers and an equal amount is contributed by the employers. In a few works, unless the worker puts in 15 years' service he is not entitled to any share in the employers' contribution.

Trade Unions.

There are no trade unions in any curing works except in the Mysore coffee curing works, Chickmagalur, where a Labour Association was registered in July 1944. But the Association is a combined one for the workers and the clerical staff and the Secretary is a member of the staff. The subscription is 2 annas

a month for the staff and 1 anna for workers. The union officials, being members of the staff, try to keep themselves in the good books of the Manager with the result that matters concerning workers are not urged by the Association.

Working of the Labour Acts.

The Hunsur coffee curing works is a perennial factory and comes under the provisions of the Factories Act. Other works come under the Factories Act only as seasonal factories. In fact, many of the works actually work for more than 180 days in the year for which they get permission from Government every year. There is no reason why they should not be declared as perennial factories. There were no accident cases in 1943 and 1944.

APPENDIX XIV

U. P. A. S. I. STANDARDS IN RESPECT TO THE WELFARE OF LABOUR IN SOUTH INDIA.

1. Preamble.

In pursuance of instructions received from the Executive Committee, the U. P. A. S. I. Labour Advisory Committee beg to recommend the undernoted standards in respect to the recruitment, payment of wages, medical treatment and general welfare of labour on all Estates subscribing to the Association.

In formulating these standards, the Advisory Committee have taken into consideration the varying conditions of elevation and the financial capabilities of the various products, and the standards recorded are considered to be well within the reach of all members

In recording these standards, the Advisory Committee in no way wish to stultify efforts or proposals for the gradual improvement of labour conditions. On the contrary, they are issued with the earnest recommendation that all concerns will at least reach these conservative limits and will exceed them wherever possible. In other words, the standards are designed to constitute a " yard stick " whereby to measure the labour conditions on each property and it will be possible hereafter for concerns to claim that :—

(1) their labour conditions are up to U. P. A. S. I. standards in all respects, or

(2) are up to U. P. A. S. I. standards with certain specified exceptions.

The Advisory Committee feel that the general adoption of these standards will lead to improvement in conditions where they are most overdue and a measure of uniformity wherewith to face the avalanche of labour legislation which the early years of peace will assuredly precipitate.

2. Recruitment.

Labour for the Plantations of South India is recruited mainly from areas situated some one to five days' journey from the estate. The labour in question is all of agricultural origin and is mostly illiterate. The labourers drawn from various recruiting districts are shown in the attached Appendix.[1]

3. The Family Gang.

On all types of plantations in South India there is regular work for men, women and adolescents ; consequently, the recruitment of whole families is considered desirable, both by the labour and the employer. Your Committee consider that the family gang is the basis of all healthy and happy recruitment.

[1]Printed on page 128 of the Report.

4. The Kangany (or Maistry) System.

A number of families hailing from one village or neighbouring villages need an experienced plantation employee to guide them in their choice of Estates and through all their difficulties during the journey from the village to the Estate. Upon arrival on the Estate, they need a man who is prepared to assist them in their petty difficulties ; be they financial or matters of food, clothing and accommodation. They need a man to guide them in their work and a man to represent their requests and grievances to the proper quarters and a man to help them in sickness and distress. It is these very needs and requirements which are the foundation of the Kangany recruiting system and your Committee are convinced that the system is good and should not be changed. The Kangany, at his best, is a first class welfare worker, for he realises that his whole career depends on his ability to maintain a good reputation with the families he recruits. That Kanganies occasionally abuse their position and petty power is not denied by your Committee, but they feel that the reduction of advances and gradual education of the labourer has gone far to curtail his opportunities for malpractices.

5. Professional Recruits.

In lending their support to the Kangany, the Committee do not wish it to be assumed that they approve of the professional recruiter who endeavours to recruit labour far away from his home, his kith and his kin. Your Committee consider such recruiters, be they known as Kanganies or private Labour Agents, are, generally speaking, a menace both to employer and employed.

Your Committee also deprecate members of the Indian Subordinate Staff being employed as recruiters.

6. Pre-employment Advances to Estate Labour.

Your Committee are not opposed to the payment of pre-employment advances to prospective labour, provided it is limited; and the labour agrees to work for a stipulated period not exceeding 10 months. In reaching this opinion, the Committee have in mind the fact that petty debts have often to be settled before the labourer can leave his village and, again, money has often to be left in the hands of old and infirm relations for their sustenance during the bread-winner's absence. It is considered more desirable that such commitments should be met by the interest-free advances of the employer rather than by the advances of rapacious money-lenders.

7. Acknowledgment of Advances.

Your Committee consider that, soon after the arrival of a gang on the Estate, the Kangany who recruited the gang should be required to furnish a list showing the total advance made to each new labourer ; that this list should be read and explained to each individual concerned and that only such advances as have been verified and acknowledged should be recovered from the labourers to the credit of the Kangany's account.

8. Way Expenses to the Estate.

Your Committee agree that the travelling expenses of a labourer recruited in distant villages should be refunded to the labourer by the employer after the said labourer has worked for a previously agreed number of days or months. No such agreement should exceed ten months. The refund should cover :—

(a) Third class fare to the Estate from Station nearest to the village to Station nearest the Estate.

(b) Bus ticket from Station to the Bus stop nearest to the Estate.

(c) An allowance to cover food en route.

9. Re-imbursement of Cost of Blanket.

There is general agreement that the actual cost of a suitable blanket should be refunded to all labourers working in the hills after the completion of a period of two hundred days' actual work.

10. Rates of pay for Field Workers and Factory Workers.

Your Committee consider that the rates of pay should be fixed by each individual planting district according to its local conditions.

The increased cost of living is covered by Special Dearness Allowances and by the issue of cheap grain as recommended by the U. P. A. S. I.

11. Food Stocks.

In all cases where the local shops are unreliable or communications are insecure, the Estate should purchase and lay in stocks of sufficient size to tide over any emergency.

12. Grain Compensation and Dear Provision Allowances.

On most large estates which buy their own rice, it has been agreed that the issue to labourers should not be at a more expensive rate than four pucca Madras measures to the rupee. Estates buy rice at the current market price and, when the price is higher than this, the loss on the rice is borne by the employer. When rice is cheaper than the above quotation, it should be issued to labourers at actual cost. In other words, the estate should make no profit when rice is cheap and bear the loss when it is expensive. This same principle should be applicable to all staple foods.

In the case of estates which do not buy their own rice, extra cash is given weekly at a rate approximately equal to the difference between the cost of rice delivered in that district and the standard maximum price of four pucca Madras measures to the rupee.

In some districts where the normal price of rice is lower than in the main Hill districts, different scales of rice compensation have been adopted, but they all work on the same principle.

In addition to this, all members of the Association have been recommended during the present period of high cost of living due to the war, that an additional eight pies per working day for every adult and four pies per working day for every child is to be added to the monthly pay.

13. Plucking Tea on Piece-work.

The standard rate for plucking on the piece-work system should be three pies per lb. of green leaf weighed at Field or Muster ground.

Any transport between the place of weighment and the factory lofts should be paid for by the management.

14. Issue of Prithi Thundu.

Your Committee consider that the following practice in a few districts is worthy of more extended adoption :—

Every labourer whose name appears in the Estate Check Roll should be issued each month with a printed account form showing his or her position in the Check Roll as at the end of the preceding month. These ' Prithy Thundus ' should be printed in the vernacular and should disclose separately all debits and credits appearing in the relative line of the Check Roll. The thundus should be initialled by the Manager of the Estate concerned in certification of their correctness and they should be handed to each labourer severally and not to the Kangany

15. Settlement of Labour.

Your Committee favour the principle that the period of settlement should be such in each district as is acceptable to the labourers of that district ; but, in order to encourage thrift, are of the opinion that settlement once in the season has many advantages.

16. Issue of Cash.

All Estates maintaining the annual payment of wages system should arrange for cash advances of sufficient size to cover normal ' selavoo ' requirements to be paid once every week in the labourer's hand. Orders on local bazaars in lieu of actual cash are not favoured by the Committee as the power of free bargaining is thereby lost.

When labourers have credit balance in the Check Roll they should be permitted to draw cash on account of this balance at any time should they wish to do so for any particular purpose.

17. Sanitation.

Your Committee consider that the scavenging and sweeping of the line villages is the duty and burden of the employers and are of the opinion that at least one sweeper is necessary for every 150 labourers residing on the Estate.

Further, your Committee consider that latrines are essential for the health and welfare of labour and recommend, as a minimum, one bore hole latrine (or latrine of a type equally efficient) per every eight persons residing on an Estate.

18. Medical.

Your Committee consider that it is the duty of the employer to provide free, either directly or indirectly, adequate medical facilities for all labour employed on the Estate including hospitalization of all serious cases. It is agreed that any Estate carrying a resident population of between 300 and 600 labourers should have a full time compounder and that Estates carrying larger resident labour forces should have the services of a Registered Medical Practitioner. It is the Committee's opinion, further, that hospital facilities should be provided within a reasonable distance of the Estates (say 15 miles) by the institution of private group hospitals, through Medical Associations or through collaboration with the Medical Departments of the Governments concerned. Transport to and from the Estate to hospital should be arranged and paid for by the employer.

19. Anti-malarial Precautions.

Your Committee consider it the duty of every Estate, however small, to take all reasonable steps to abate malaria. The Committee also recommend to all members support of the Ross Institute or its local affiliations.

20. Maternity.

Pregnant women should be excused work on the Estate for a minimum of three weeks before and three weeks after confinement. In the opinion of your Committee, during this period food and milk should be provided free by the employer.

A grant of at least Rs. 3 should be given by the employer at the time of confinement for the purchase of sundry requirements.

21. Extra Feeding of Children.

The services of a trained midwife should be available to all estates carrying a resident labour force of 200 or over.

One meal per day should be provided by the employers to the children on the Estate from the time they are old enough to eat (say two years of age), until they are old enough to work. The food should be cooked under supervision of the Estate Medical Staff and issued in its cooked form to the children assembled at the hospital or muster ground and the meals should be consumed on the spot.

22. Creches.

The Committee consider that shelters for the children-in-arms should be provided at convenient centres in the plucking fields and attendant women should be employed at the expense of the employer.

23. Recreation.

The Committee agree that foot-ball grounds and volley-ball courts should be provided by the management.

24. Accommodation.

This is a matter which had had the very close consideration of your Committee and they beg to recommend the following standards :—

General lay-out of villages.—The line requirements appertaining to each Estate or to each division of an Estate should be concentrated into carefully selected village areas ; this for reasons of medical and sanitary supervision.

Well kept and broad paths of beaten earth should lead to and through the villages.

25. Types of Buildings.

A number of members have very kindly furnished the Labour Advisory Committee with plans and specifications of first class modern lines for labour. It is regretted that, on grounds of economy, only a few of these can be reproduced. Your Committee have selected four designs which are considered representative of various types, and are of the opinion that one at least of these four designs will be found suitable for any given altitude and|or weather condition found in South India.

The designs of the four types of lines selected by the Committee are printed* as received, but your Committee wish to make the following comments :—

Walls.—' Blasted rubble in mud ' is a tolerable specification for walls only, when the height of the wall is less than 9 feet. Any walls exceeding 9 feet should be built in mortar throughout.

Light.—In tile roofs there should be at least two glass tiles per living room and two per kitchen.

Kitchen Stoves.—Every kitchen should be provided with a suitable country stove and a chimney. Attention is drawn to Type B in this respect.

Drains.—Concrete yards and drains in accordance with Type C are recommended in all cases.

26. Water supplies.

Pure water should be provided within 150 yards of each set of lines, either in the form of a protected well with a pump, by aqueduct, or by pipes and taps.

*Omitted.

27. Vegetable Gardens.

Certain areas adjacent to the line villages should be demarcated by the employer as allotments for labourers for the production of vegetable for home consumption.

28. Cattle-keeping.

The labour should be encouraged to keep cattle within the limits laid down by the employer in respect to quality of cattle, numbers and control. Cattle-keepers should be provided as requisite at the expense of the employer. A small fee per adult animal per month should be levied and earmarked for the purchase of quality stud-bulls. The employer should refuse to permit weedy cattle on his Estate and uncastrated bulls.

29. Education.

Facilities for free primary education should be given for all children resident on the Estate.

APPENDIX XV

SPECIFICATIONS FOR A AND B TYPE LABOUR QUARTERS FOR SOUTH INDIAN PLANTATIONS.

Foundations and plinth.

As indicated in the plans facing page 160.

Foundations to be of lime concrete 3 ft. wide and 1 ft. thick. The thickness to be modified to suit soil conditions.—(Modify if deep).

Masonry in foundations and plinth shall be of random rubble in lime mortar 2 ft. thick. The plinth shall be 1 ft. and 6 inches high above ground level.

The depth of masonry in foundation should be modified to suit soil conditions at site :—

Damp proof course.

A ¾ in. damp proof course of 1 cement, 1 lime, and 3 coarse sand shall be laid on the top of the plinth of all walls in areas where this protection is required.

Superstructure.

Walls.—Shall be of random rubble in mud 1 ft. and 6 in. thick, except for 1 ft. all round doors, windows, and open shelves and for one foot depth below roof level where lime mortar should be used.

Where brick is used, the thickness of the walls should be reduced to 13½ inches.

Lintels.—One of the following shall be provided over doors, windows, and shelves : R.C. slabs 4 in. ; flat arches of brick in lime mortar ; cut-stone 6 inches thick ; or Malabar teak 3 inches thick—depending on availability and cost. In all cases a bearing of 6 inches shall be provided on either side.

Leaves for shelves shall be of either R.C. 2 inches or T.W. planks 1½ inches thick.

Doors.—All doors shall be single leafed and panelled and of the dimensions indicated in the drawings. They shall be of best seasoned wood available, and fitted with suitable hinges, bolting arrangements, etc.

Windows.—All windows shall be glazed except for the bottom-most panel which shall be of wood, and the top panel of verandah windows which shall be of ½ in. wire gauge, to secure privacy. Frames to be of well-seasoned wood with appropriate fittings such as hold fasts, wind hinges, hooks and eyes, etc.

Wood work.—Rafters, bressummers, posts, etc., shall be of the best malabar wood locally available and shall be painted with wood oil 2 coats. Portions built in masonry shall be painted with 2 coats of coal tar. Dimensions as indicated in the drawings.

Roofing shall be of mangalore tiles laid on battens 2 in. × 1 in. Two glass tiles shall be provided in the portion of the roof over the kitchen. Roofs shall project 2 ft. beyond the walls.

Flooring shall be of lime concrete skimmed with cement and floated with a wooden float. Concrete shall be laid over 6 inches coarse sand and filling well watered to prevent dampness due to capillary action.

Plastering & Finishing.

The inside shall be plastered with specially prepared mud plaster and given 2 coats of white wash. The exposed portions shall be painted with cement 1 : 3 after properly raking up all joints one and a half inches deep.

Fire place and Chimneys.

They shall be provided for in the kitchen as indicated in the drawings. The metal hood shall be not less than 12 B.W.G. thick.

Miscellaneous.

(a) A loft for storing fuel, etc., shall be provided in the kitchen and shall consist of 2 in. country wood plank over cantilevered wooden brackets as indicated in the drawings.

(b) An improvised bathing place shall be provided by fixing a bamboo mat or G.I. sheet in the rear verandah. Where a courtyard is provided, the bathing place in the verandah shall be omitted and provided in one corner of the courtyard. The verandah floor shall be suitably sloped for drain water as indicated in the drawings.

(c) A sink 2 ft. × 2 ft. × 6 in. shall be provided in the kitchen with suitable drain pipes for carrying the sullage water to the drains. Similar arrangements for drainage shall be provided in the bath rooms.

(d) Drains shall be close to the walls to prevent damage by feet of cattle and shall be 6 inches in V shaped plastered with cement mortar or constructed according to local practice.

Quantities

The quantities of work under various items are worked out and enclosed in abstract sheets. The cost has not been worked out as the rates vary from place to place.

Abstract of Quantities for Labour Quarters—TYPE A .

Serial No.	Sub-heads and items of work.	Quantity	Rate	per	Amount.
1.	Earthwork excavating foundation	2200 Cft.	1000	Cft.	
2.	Concrete broken stone in lime mortar	750 Cft.	100	Cft.	
3.	Random rubble stone in lime mortar in foundations and basement	1700 Cft.	100	Cft.	
4.	Damp-proof course ½"	480 Sft.	100	Sft.	
5.	Random rubble stone in mud for superstructure	1650 Cft.	100	Cft.	
6.	Random rubble stone in lime mortar for superstructure.	800 Cft.	100	Cft.	
7.	Plastering with mud including white washing 2 coats (inside only)	2100 Sft.	100	Sft.	
8.	Cement pointing 1 : 4 (outside only)	1100 Sft.	100	Sft.	
9.	Country wood doors panelled complete with fitting and including two coats of wood oiling	163 Sft.		Sft.	
10.	Country wood windows, glazed with bottom panel of wood, (with iron bars and fittings complete and two coats of wood oiling)	84 Sft.		Sft.	
11.	Country wood wrought and put up	195 Cft.		Cft.	
12.	Flooring with 2" cement concrete (1 : 2 : 4) over 4" lime concrete	850 Sft.	100	Sft.	
13.	Bamboo matting with two coats of tar or G. I. sheets	108 Sft.	100	Sft.	
14.	Wood oiling two coats	3600 Sft.	100	Sft.	
15.	Reinforced concrete lintels	41 Cft.		Cft.	
16.	Fire place and flue complete	2 Nos.		each	
17.	Filling in basement	lump sum			
18.	Sand filling	lump sum			

Abstract of Quantities for Labour Quarters—TYPE Б .

Serial No.	Sub-heads and items of work.	Quantity	Rate	per	Amount.
1.	Earthwork excavati g for foundations	200 Cft.			
2.	Concrete broken stone in lime mortar . ..	650 Cft.			
3.	Random rubble stone lime mortar in foundation and basement	1600 Cft.			
4.	Random rubble in lime mortar in superstructure	960 Cft.			
5.	Random rubble in mud in superstructure ..	1250 Cft.			
6.	Plastering with mud and white washing 2 coats	1900 Cft.			
7.	Pointing with cement mortar (1 : 4)	1700 Sft.			
8.	Country wood doors panelled including 2 coats of wood oiling	97·5 Sft.			
9.	Country wood windows glazed with the bottom panel of wood (with iron bars fittings etc. including 2 coats of wood oiling)	56 Sft.			
10.	Country wood wrought and put up	148 Cft.			
11.	Flooring with 2" cement concrete (1 : 2 : 4) with ½" size over 4" lime concrete	610 Sft.			
12.	Bamboo mats 2 coats tarred or G.I. Sheets ..	170 Sft.			
13.	Wood oiling	2400 Sft.			
14.	Filling in basement	lump sum			
15.	Sand filling	lump sum			
16.	Fire place and chimney	lump sum			

APPENDIX XVI.

BRIEF SPECIFICATIONS FOR SEPTIC TANK TYPE LATRINES FOR LABOUR QUARTERS IN SOUTH INDIA.

See plan facing page 234.

Floor of Tanks.—This will be 4 in. thick reinforced concrete 1 : 2 : 4 laid over 4 in. thick cement concrete 1 : 5 : 10, rendered with ½ in. thick 1 : 2 cement plaster. It shall slope 1 ft. 6 in. in a 16 ft. length towards the outlet end.

Roof slab.—2 ft. × 2 ft. manhole openings with 2 ft. 6 in. × 2 ft. 6 in. reinforced cement concrete covers 3 in. thick will be provided.

Earth cover over the slab.—There shall be a minimum 6 in. earth filled and rammed over the covering slab.

Joints.—The constructional joints at the junction of the reinforced cement concrete flooring and walling shall be rendered watertight by providing a fillet of concrete and pouring melted bitumen and caulking with hemp rope dipped in bitumen.

Baffles.—These shall be 4 in. thick 1 : 2 : 4 Cement concrete plastered on both sides with ½ in. thick cement plaster and shall be reinforced at the bottom with 3 No. ⅜ in. diameter longitudinal bars bound with ¼ in. diameter loops 6 in. centre to centre.

Pipes and Bends.—4 in. outlet pipes and bends of glazed stoneware shall be provided as in the drawings.

Outlet Drain.—This shall be pucca for a length of 5 ft. starting from the point of outlet followed by a minimum length of 150 ft. kacha drain with 2 ft. length again pucca at the end as shown in the drawing. For the pucca drain the bricks will be laid in 1 : 2 cement mortar over 3 in. thick 1 : 5 : 10 cement concrete and covered over with earth as in the drawing. In the kacha drain the bricks will be laid dry covered over with stones packed with hand and the interstices blocked with small pieces of stones and finished with at least 6 in. earth filling at top as in the drawing. The depth of the drain, to permit of aerobic bacteria to function satisfactorily, shall not exceed 3 ft.

Tank cover.—This shall be reinforced cement concrete 1 : 2 : 4 having 4 in. thick slab.

Water Closet Fans.—Shall have a straight drop into the tank, the end shall project into the water 6 in. below the maximum water level (neither more or less).

Floor of Water Closets.—This shall be finished with ½ in. thick granolithic (white cement 1, marble chippings 2) over 1 in. cement concrete 1 : 2 : 4 and 3 in cement concrete 1 : 5 : 10. Surface of the granolithic shall be polished bright by rubbing with carborundum stone.

Walls of Water Closets.—These shall be 1 : 5 : 10 cement concrete rendered over with ½ in. thick cement plaster 1 : 3 outside and inside except 3 ft. from the floor which shall be ¼ in. thick granolithic (White cement 1, marble chips 2).

Footholds.—It will be desirable to have these purchased ready manufactured and embedded into the floor along with water closet pans.

Doors.—All doors shall open inside. These shall have light angle iron and flat iron frame rivetted to 24 G.I. sheeting as detailed in the drawing. The door shall have a sliding bolt for inside and a suitable double handle for operation from inside as well as from outside.

Wire gauge for Ventilators.—This shall be provided on all openings on the outer and partition walls except the long cross walls and shall go right upto the roof level. This will consist of light flat iron frame and wire gauze having not less than ¼ in. mesh so as to be fly proof and will be fixed into the ventilators and held in position while plastering the sides of the openings.

Vent Pipes.—2 in. diameter galvanised iron pipe vents shall be provided one for each tank with a cowl at the top as in the drawing.

Roofing.—This will be of 24 B.G. corrugated galvanised irons sheeting.

Water Tanks.—Two reinforced tanks 2 ft. 6 in. diameter × 3 ft. deep fitted with 2 in. bib taps with a bucket and a platform shall be provided to facilities washing of the water closets.

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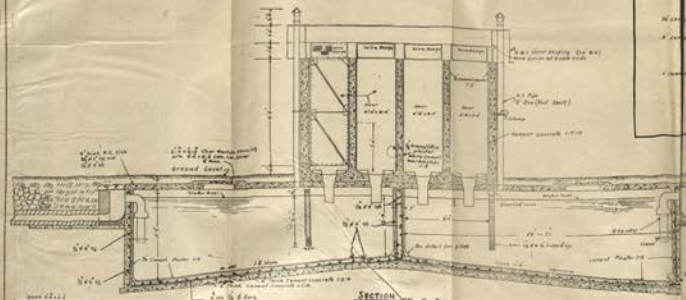
SEPTIC TANKS TYPE LATRINES



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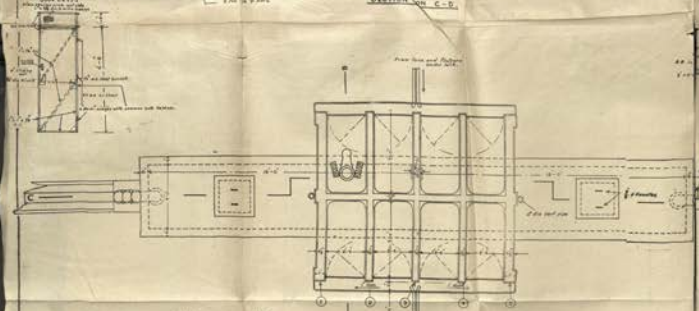
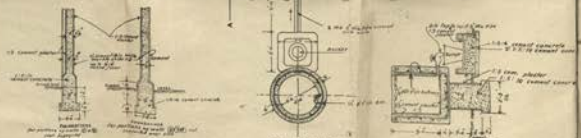
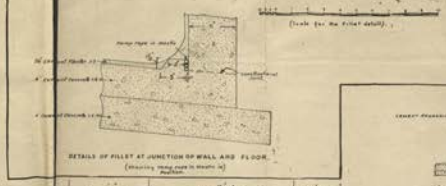
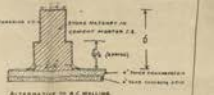


PLAN

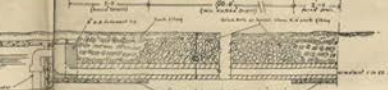




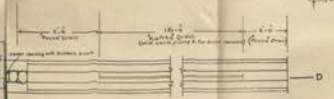
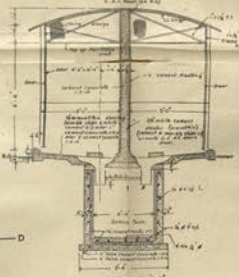
DETAILS OF FILLET AT JUNCTION OF WALL AND FLOOR



ALTERNATIVE TO R.C. ROLLING



PUCCA DRAIN

KATCHA DRAIN



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